



# **NATIONAL AIDS CONTROL PROGRAMME INDIA**

## **COUNTRY SCENARIO**

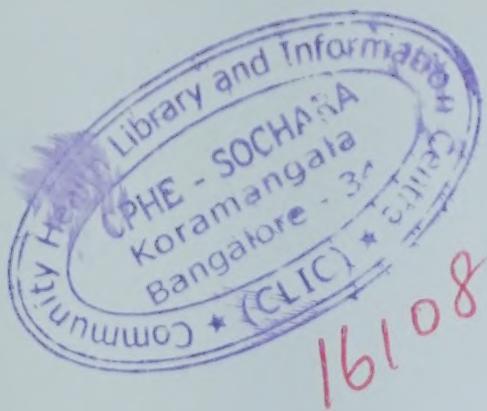
### **AN UPDATE**

**April 1993**



**National AIDS Control Organization  
Ministry of Health & Family Welfare  
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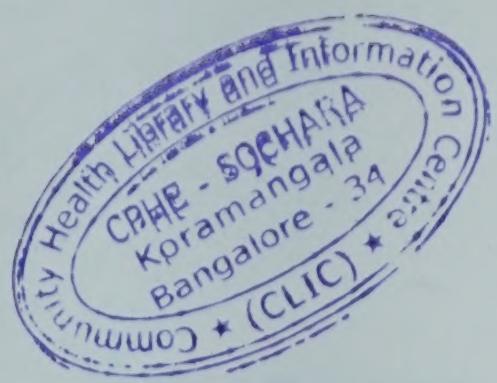


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GOVERNMENT OF INDIA  
राजस्थ एवं परिवार कल्याण मंत्रालय  
MINISTRY OF HEALTH & FAMILY WELFARE

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## PREFACE

AIDS, this apparently innocuous four letter word, is an enigma which has defied all the efforts of health professionals and scientists to find any effective cure or vaccine against it. Consequently, the prevalence figures during the last few years have been mounting ominously the world over without any manifest sign of remission.

AIDS is not just a medical problem. As an infection and a disease, it is vitally linked to other social and ethical issues pertaining to segregation, confidentiality, voluntary testing, legal rights, employment, etc. which further compound the problem.

Of preventive measures, the two most pragmatic approaches to this complex problem are to prevent and contain the spread of the human immunodeficiency virus, the causative organism of AIDS, through positive changes in risky sexual practices, and by stopping transmission routes through blood.

National AIDS Control Organization, Ministry of Health & Family Welfare, has already commenced execution of its multifarious strategies in active collaboration with the World Health Organization. The book 'National AIDS Control Programme, India, country scenario - an update' provides a comprehensive overview of all its strategies and activities. It also apprises health care providers, managers and planners as well as general readers of the existing epidemiological situation of HIV infection and activities of prevention and control being undertaken by the Organization.

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Additional Project Director (IEC)



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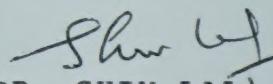
The document 'National AIDS Control Programme, India Country Scenario - an Update' gives a comprehensive account of the National AIDS Control Programme in retrospect and prospect. The document provides its readers with the latest epidemiological information on HIV infection in the country. It also sheds light on the various components of the multipronged strategy embarked upon by the National AIDS Control Organization in collaboration with the World Health Organization to grapple with the menace of AIDS.

I express my profound gratitude to Mr. P.R. Dasgupta, Additional Secretary & Project Director, National AIDS Control Organization who has been a constant source of encouragement and support at all stages of development of this document.

I am immensely thankful to all the contributors i.e. Dr. Kusum Sehgal, Additional Director (IEC), Dr. V.N. Sardana, Deputy Director (Blood Safety), Dr. Shriniwas, Dr. D. Sengupta, Dr. N.C. Bhargava, Mr.P.Ray, Mr. K.S. Jagannathan, National Consultants, Dr. P. Salil and Dr. B.B. Thakur, Assistant Directors, for their valuable contributions in preparing this document. I am also indebted to the WHO team i.e. Dr. L. Khodakevich, Medical Officer, Dr. C.J. Van Dam, STD Adviser, Ms Carol Larivee, Health Education Specialist, Mr. P. Brenny, Technical Officer and other members who actively collaborated with us.

I also feel grateful to the incharge of Surveillance Centres/Zonal Blood Testing Centres, and the State Governments for providing up to date information.

Lastly but not the least, I shall be failing in my duties if I do not pay my thanks to other colleagues and staff members who rendered all possible help in bringing out this document.

  
(DR. SHIV LAL)



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## FOREWORD

The spread of Human Immunodeficiency Virus all over the world cutting across all the barriers of geographical, economic, social and ethnic distinctions poses globally a grave challenge in the areas of health, social and economic development. As presently there is no effective cure or vaccine available to combat this deadly disease, the challenge is indeed an enigma which warrants a concerted and determined global effort to prevent and contain the further spread of this virus.

As of now, the AIDS situation in India might not have assumed the same dimensions or magnitude as in some of the American or African countries. Nevertheless, taking into account the ominous trends of escalating rates of infection over the last few years, there appears to be no room for complacency on our part. In fact, realizing the gravity of situation, the National AIDS Control Organization has already been created by the Ministry of Health & Family Welfare to implement and monitor the AIDS Control Programme in our country. The Organization is being actively supported by the World Health Organization in the execution of all programme activities for control and prevention of AIDS, and several external donors providing cash and equipment needed for AIDS prevention activities.

The book 'National AIDS Control Programme, India country Scenario - an update' has been published with the objective of giving an overview of the development of the National AIDS Control Programme. The book will enable the planners, administrators, health care providers and other readers to acquaint themselves with the existing magnitude and the trends of HIV infection in the country and the strategies embarked upon by the Government of India to combat this menace effectively.

( P.R. Dasgupta )



## 1. EXECUTIVE SUMMARY

The first AIDS case in India was reported in May 1986. Since then, 310 cases of AIDS have been reported from 20 States/Union Territories of the country. It has been estimated that if the transmission of HIV continues at the same pace, by the year 2000 AD about 5 million persons would have been infected in India and the number of AIDS cases would exceed one million.

According to the data available up to 31 March 1993, the cumulative total of Western Blot seropositive cases from 1 October 1985 to 31 March 1993 is 11,849 out of a total of 16,59,412 samples screened over the same period. This figure represents a seropositivity rate of 7.14 per 1000. There has been a consistent increase in the prevalence of HIV infection in the country starting from 1985 to 1992. Heterosexual promiscuity is responsible for the majority of these infections except in the North-Eastern States where intravenous drug use is the primary causative factor.

HIV infection prevalence rate varies widely in different geographic areas and population groups. According to available information, Maharashtra, Tamil Nadu and Manipur States have reported the preponderance of HIV infected cases to date.

Realizing the gravity of this situation, the National AIDS Control Programme which has been operational since 1987, has been strengthened and consolidated since 1992 at an estimated cost of Rs 222.60 crores for the period 1992-97. The programme is being funded through assistance from the World Bank by a soft loan of US \$ 84 million and technical assistance from the World Health Organization.

A comprehensive strategic action plan for the prevention and control of HIV and AIDS in India has been drawn up by NACO, Ministry of Health & Family Welfare in collaboration with WHO. The major components of this strategic plan are the following:

### (a) Programme Management

For an effective implementation of National AIDS Control Project, a separate organization, the National AIDS Control Organization (India) has been set up in the Ministry of Health & Family Welfare. In addition a number of coordinating bodies have been constituted at the Union and State level.

A National AIDS Committee (NAC) under the chairmanship of Hon'ble Minister of Health & Family Welfare and a Multisectoral Committee under the chairmanship of Secretary (Health) having representatives from various sectors have already been constituted to promote effective intersectoral collaboration. In order to ensure efficient programme management, a National AIDS Control Board has been constituted at the national level under the chairmanship of Secretary (Health). Besides the above, a Technical Advisory Committee (TAC) has been established to strengthen the technical and research capabilities of the programme.

Similar to these coordinating/management bodies, parallel bodies are being created in the states in the form of Empowered Committees, State AIDS Cells and State Technical Advisory Committees.

These committees meet periodically to ensure smooth programme management and implementation.

## **b) Surveillance and Research**

The surveillance within the framework of AIDS Control Programme includes 2 components viz. (i) Surveillance of HIV infection and (ii) Surveillance of AIDS cases.

The existing HIV surveillance mechanism is based entirely on 62 HIV testing laboratories, designated as surveillance centres, located throughout the country. However, the data that emanates from these centres is now considered inadequate owing to changing priorities and uses to which this data is being put. Therefore, with a view to revamping and strengthening HIV surveillance activities in the country, it has been decided to adopt a sentinel surveillance methodology wherein a few selected sentinel sites and populations would be screened for HIV prevalence and trends over a period of time.

The surveillance activities are being decentralized in order to facilitate appropriate action at the state and district levels. The sentinel surveillance system is proposed to be implemented in 1993-94.

For AIDS Case Surveillance, all medical institutions will participate in the identification of suspected AIDS cases, while only so called referral institutions (hospitals) have been made responsible to finally diagnose a case and report it to the public health authorities. In order to operationalize this, training programmes for the state trainers - physicians responsible for AIDS case management (PRAMS) and district PRAMS will be conducted during 1993-94.

## **c) Behaviour change through Information, Education and Communication and the Reduction of Impact**

This component includes activities aimed at the generation of awareness about HIV/AIDS and bringing about positive changes in the risky behaviours. It has adopted a multipronged strategy comprising of media campaigns, social mobilization, targeted interventions for high risk behaviours, collaboration and support to NGOs, training and operational research. This component is linked closely with other components of the programme.

One of the additional objectives of this component is also to reduce the social & psychological impact of AIDS epidemic by appropriate and adequate provision of counselling services and to ensure that all affected by AIDS receive proper care and treatment inside as well as outside the clinical setting in respect of individuals' rights and dignity.

Starting up a comprehensive counselling support programme, including training of a wide variety of health care workers and social and community workers through a standard training module and materials, are also important aspects of the plans for this component. It eventually aims at building up a continuum of care for HIV/AIDS cases starting from home care to clinical management at the hospitals.

## **d) STD Control**

Besides the fact that the same high risk behaviour is common for STD and AIDS, it has also been realized that STDs themselves increase the risk of HIV infection manyfold. Therefore, an increased emphasis has been accorded to this component of the programme.

In view of the fact that barely any worthwhile baseline data is available for the STDs, community-based surveys have already been conducted in Calcutta, Jaipur and Madras which will form a basis for interventions in these localities.

The National AIDS Control Organization has planned to strengthen all the 372 STD clinics in the country in terms of supply of equipment and development of manpower.

**e) Condom Programming**

The objective of the condom programming is to ensure easy access to good quality, affordable and acceptable condoms. The underlying strategies to achieve this objective include provision of technical assistance to companies to manufacture condoms in conformity with the quality specifications of WHO, strengthening existing social marketing structures in the Department of Family Welfare, promoting market research and strengthening the management capabilities of PVO/NGOs that promote and distribute condoms. NACO is already acting on these lines.

In fact, Schedule 'R' of the Drugs and Cosmetics Act has been already revised to bring the condom specifications within the quality parameters as prescribed by WHO. Notifications of the amended schedule will take place in near future.

**f) Blood Safety Programme**

The Blood Safety Programme aims at developing and strengthening the national blood transfusion system and ensure adequate supply of safe blood to the blood banks. At present, there are 1018 blood banks including 608 in the public sector operating throughout the country.

An adequate legal framework has been provided in Schedule 'F' XII-B to ensure the safety of blood and blood products. This includes mandatory testing for HIV. During the past 3 years, 180 HIV Zonal blood testing centres have been established in 112 cities. The National AIDS Control Organization has launched a Central Scheme of assistance to States to upgrade and provide minimum facilities to all blood banks in the public sector. There is a plan to take up 187 blood banks in 1993-94. In order to rationalize the use of blood and blood products, component separation facilities are being set up. There is a plan to set up 15 such centres during 1993-94.

Besides these activities, IEC component of National AIDS Control Programme will provide substantial inputs for expanding the voluntary donor base.

The Govt. of India has accorded an overwhelming emphasis and high priority to AIDS control. It recognizes the significance of mobilizing all segments of society, including various ministries, private sector organizations and institutions, and other interested organizations to accomplish the desired aim of prevention of HIV transmission in India.

## 2. THE CHALLENGE

### Introduction

During the past decade, the world has seen what appeared at first to be an illness largely confined to homosexual men and drug injectors in developed countries become a pandemic affecting millions of men, women and children on all continents.

Heterosexual transmission of the Human Immunodeficiency Virus (HIV) is on the rise in both the developed and developing world, and predominates in sub-Saharan Africa, Asia and much of Latin America. Women are increasingly affected, and it is expected that by the year 2000 the infection rate among women will be equal to that of men. Perinatal transmission, i.e. transmission of HIV from an infected woman to her fetus or infant, is showing a corresponding increase. Homosexual transmission varies markedly between and even within countries. HIV infection resulting from contaminated blood transfusions has been virtually eliminated in the developed countries and is declining elsewhere. HIV transmission through the sharing of injection equipment by drug users is on the rise in developed and developing countries.

Encouraging progress has been made by scientists in understanding the immunological basis for protection against HIV infection. Some experimental vaccines have been successful in protecting non-human primates against the simian immunodeficiency virus. The development of a highly effective vaccine applicable for a wide public prevention effort is not, however, expected in the near future. In spite of extensive laboratory trials and rapid advances in the understanding of AIDS pathogenesis in the years following the identification of HIV, the pace of discovery of an antiretroviral agent is less spectacular.

Observations on the effects, and adverse reactions of some drugs like Zidodudine, dideoxycytidine, dideoxyinosine, and others indicate the need for a change in the clinical treatment strategy towards a combination therapy. This particularly as it has become more evident that the virus develops resistance to drugs over time. Given the prohibitive cost of antiretroviral drugs, the treatment of opportunistic infections remains the only real choice open to a physician, especially in a developing country.

The prospective for the prevention of HIV transmission is not grim though, considering that the major modes of transmission of HIV are known, and various studies have shown that the spread may really level off or even decline as a result of behavioural changes. Reduction of the number of sexual partners and correct use of condoms during sexual intercourse have been proven to prevent HIV infection. More and more emphasis is also now being placed on the control of traditional sexually transmitted diseases. As a factor which increases the infectivity of and susceptibility to HIV, widely spread STDs are seen as a serious obstacle to the effective prevention of the HIV epidemic.

### The Global AIDS Strategy

The initial Global AIDS Strategy designed in 1985-86 was reviewed in 1991 to reflect scientific advances and practical experience gained in the interim. The new Strategy, endorsed in 1992 by the World Health Assembly and by the Economic and Social Council of the United Nations, proposes ways of meeting new challenges of the evolving epidemic, which include:

- adequate and equitable provision of health care to the growing numbers of HIV-infected people falling ill;
- treatment for other sexually transmitted diseases, which increase people's biological vulnerability to HIV infection;
- reduction of women's social vulnerability to HIV infection by improving their health, education, legal status and economic prospects;
- a more supportive socioeconomic 'environment' for AIDS prevention;
- immediate planning in anticipation of the pandemic's socio-economic impact;
- a greater focus on conveying effectively the compelling public health rationale for overcoming stigmatization and discrimination.

The three main objectives of the strategy remain:

- to prevent infection with HIV;
- to reduce the personal and social impact of HIV infection;
- to mobilize and unify national and international efforts against AIDS.

## 2.1 Global AIDS situation

By the end of 1992, out of 193 countries reporting to WHO on AIDS morbidity, 173 had registered one or more AIDS cases (see table 2.1.1), a clear indication that AIDS is a pandemic and that no diversity in ethnic features, cultures, politics or economies serve as a barrier to this disease.

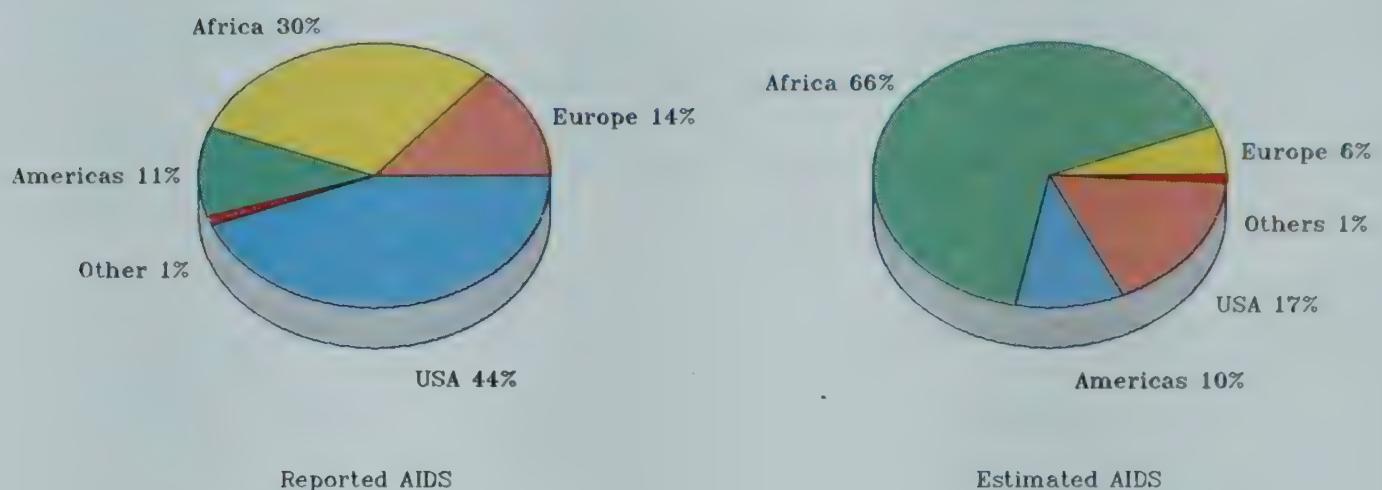
**Table 2.1.1**  
**Number of countries reporting AIDS cases to WHO and**  
**number of cases reported, as of 31 December 1992\***

Area	No. of countries reporting to WHO on AIDS cases	No. of countries reporting one or more cases	No. of cumulative cases reported
Africa	53	52	211,032
America	45	45	313,083
Asia	40	33	2,582
Europe	32	31	80,810
Oceania	23	12	4,082
<b>World Total</b>	<b>193</b>	<b>173</b>	<b>611,589</b>

\* Summary of the WHO Weekly Epidemiological Record, No 3, 15 January 1993

It is well understood that due to incomplete diagnosis and reporting, the reported number of AIDS cases is a relatively crude indicator of actual AIDS morbidity. The WHO estimates that a total of about 2.5 million AIDS cases have occurred globally in men, women and children since the beginning of the epidemic. About 67% of the global estimated AIDS cases have been in African countries, 17% in the USA, 10% in other American countries and 6% in Europe (figure 2.1.1).

**Figure 2.1.1**  
**WHO Estimates on the cumulative adult AIDS cases, mid 1992**



WHO estimates that by the end of the century the cumulative number of AIDS cases globally will exceed ten million.

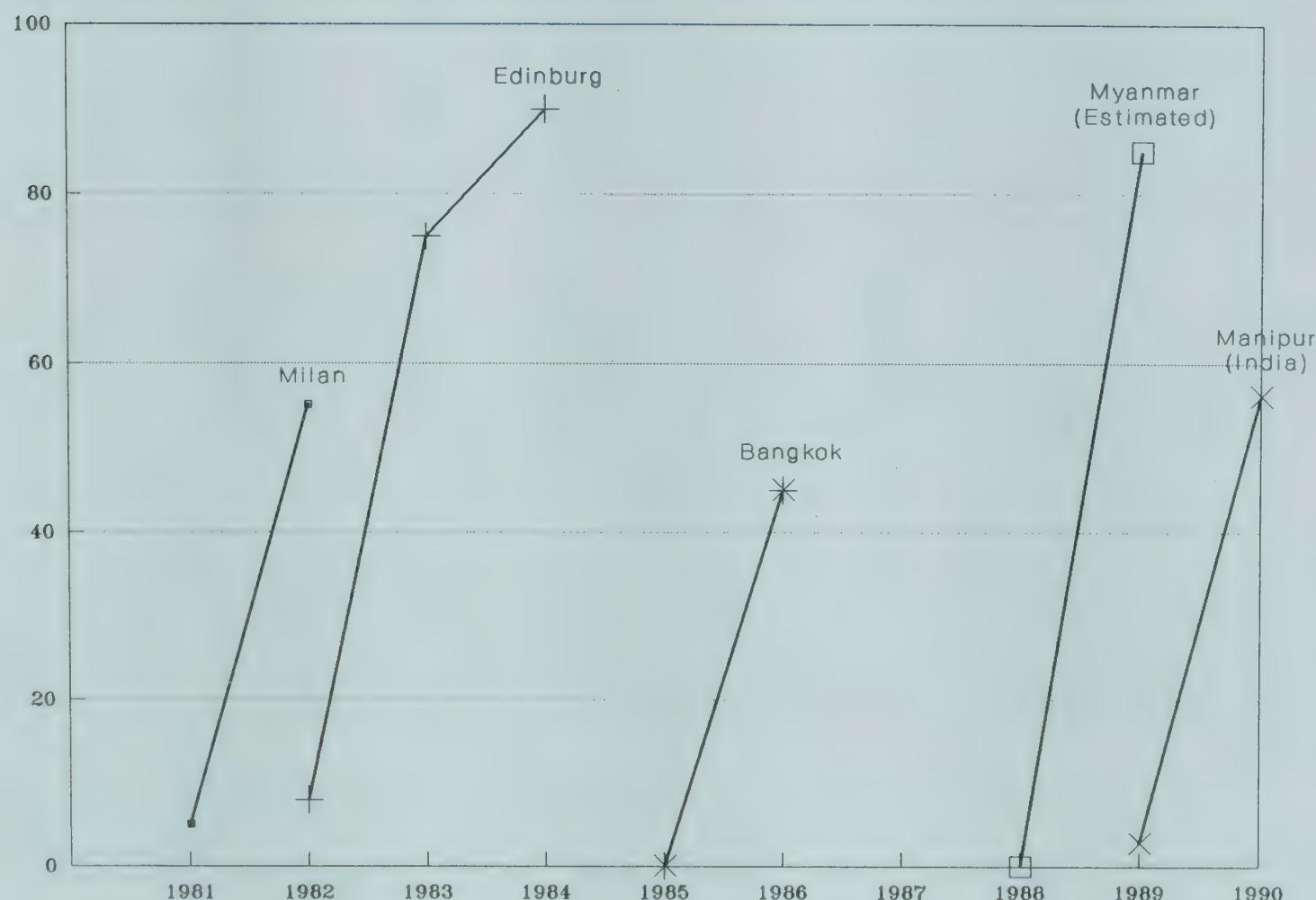
As the interval between HIV infection and AIDS is on an average 10 years long, it is not AIDS cases but the estimated number of HIV infected individuals which provides a more accurate picture of the development of the epidemic.

The incubation period of immune suppression attributable to HIV is at this moment estimated at an average of ten years. For this reason the counting of AIDS cases reflects only the number of HIV infections having occurred somewhere in a relatively distant past. The present number and rates of HIV infections provides a more accurate picture of the development of the epidemic and it is a more sensitive indicator of the dynamics of HIV transmission in various populations and areas.

As mass screening of the whole population for HIV is unbearably expensive and logistically impossible, actual prevalence in selected groups found by limited studies is projected to provide a general picture of the epidemic in any country. Currently WHO estimates that there have been approximately 13 million men, women and children infected with HIV since the start of the pandemic, about one million of these being children. With an estimated 5000 infections occurring daily, the global number represents an increase of about one million from mid-1992 to the end of the year. The majority of new infections have occurred in sub-Saharan Africa and South and South-East Asia.

The HIV pandemic consists of many separate epidemics. In some cases even within a single country, each epidemic has its own starting point and involves different types and frequencies of risk behaviours and practices like having multiple sex partners or sharing drug injection equipment. Global experience indicates that when HIV reaches a new area the sharpest increase in HIV prevalence is observed among injecting drug users sharing unsterilized equipment (figure 2.1.2). This global experience also indicates that in the female commercial sex workers, it takes several years to reach similarly high infection rates (figure 2.1.3), and in the general population, where risk practices are less frequent, the prevalence grows more slowly though steadily (doubling in 3-5 years).

**Figure 2.1.2**  
**Some examples of HIV prevalence among injecting drug users**

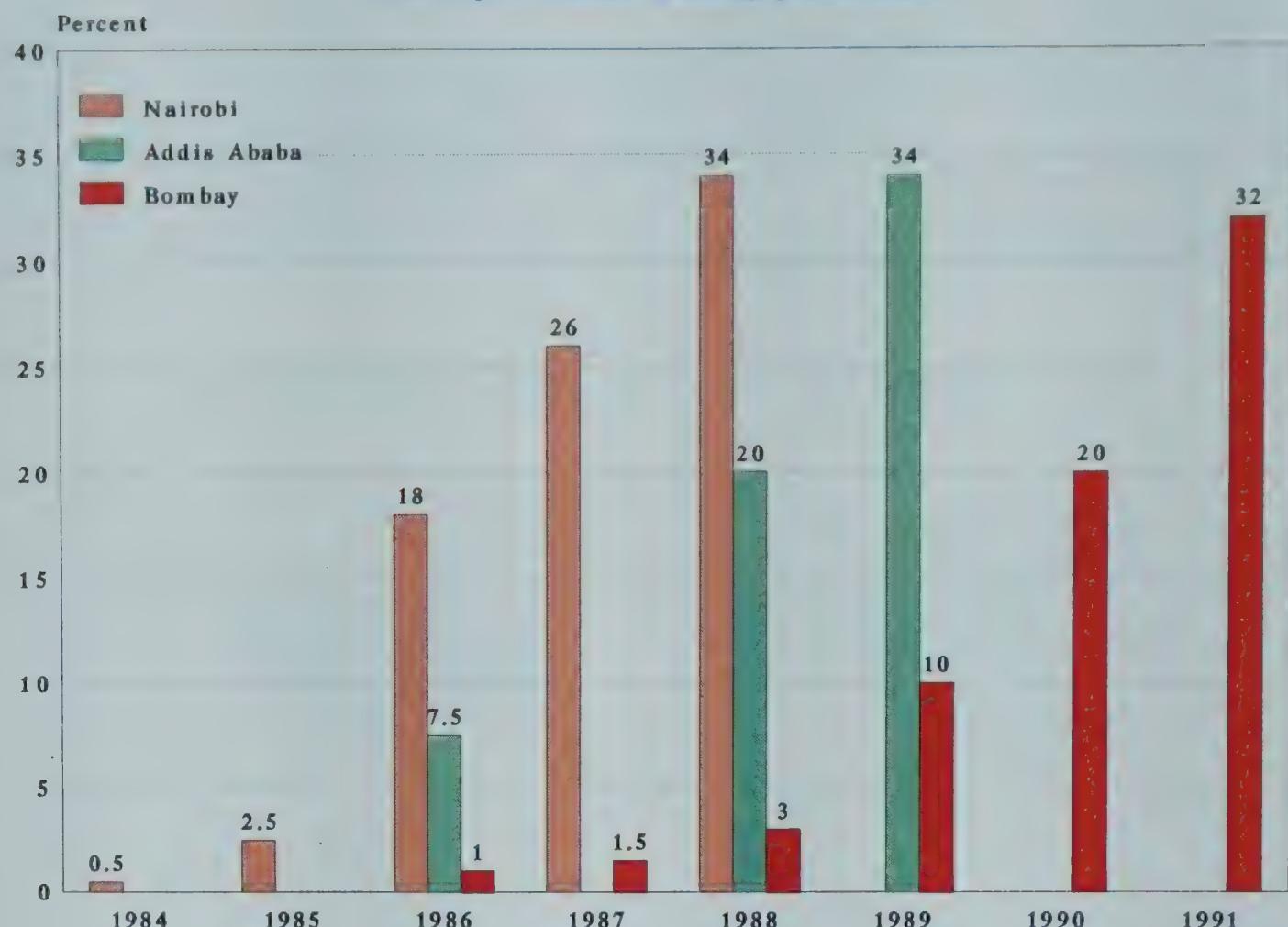


As of today, the regional distribution of cumulative HIV infections in adults is estimated to be as follows: sub-Saharan Africa has had over 7.5 million HIV infections, the Americas over 2 million, South and South-East Asia over 1.5 million, Western Europe about half a million, North Africa and the Middle East about 75,000, Eastern Europe and Central Asia about 50,000, East Asia and the Pacific over 25,000. Australia has had a little over 25,000 infections to date, as a result of new estimates released this year.

## 2.2 AIDS situation in the countries of the South-East Asia Region\*

AIDS came later to WHO's South-East Asia Region. The first reported case was in Thailand in 1985. According to the available data, over 1,250 cases of AIDS have been reported from this Region up to October 1992. Thailand and India together have reported the vast majority (95 per cent) of these cases. Bhutan, DPR Korea and Mongolia are yet to

**Figure 2.1.3**  
**HIV prevalence among prostitutes**



report a case. Compared with other regions in the world, these figures may seem comforting, but there is no room for complacency. Although the pandemic of AIDS in this region is still in its early stages, the virus is spreading very rapidly and more than one and a half million persons are estimated to have been infected since the beginning of the pandemic.

The exceptional increases of HIV infection in female commercial sex workers in Thailand and India, and injecting drug users (IDUs) in Thailand, India and Myanmar (please see figures 2.1.2 and 2.1.3), serve as cases in point. In Thailand, HIV rates among IDUs increased sharply from about 1 per cent at the beginning of 1988 to 39 per cent by mid-1989. In Myanmar, the HIV rates among IDUs were zero in 1988. In 1991 these had risen to 71 per cent. In India's northeastern states, particularly Manipur, 54 per cent of IDUs tested recently have been found to be infected with HIV.

HIV infection rates in female commercial sex workers have shown similar explosive increases. In India, the HIV rates in this group in Vellore, Tamil Nadu increased from 0.5 per cent in 1986 to 34.5 per cent in 1990. In Bombay female commercial sex workers, the corresponding figures have increased from about 1 per cent in 1986 to 18 per cent in 1990; currently 35 per cent of them are HIV infected. In Chiang Mai, Thailand, about 44 per cent of lower class female commercial sex workers showed HIV infection in 1989; a year prior to that, only 1 per cent had been infected.

\* Based on "AIDS in South-East Asia. No Time for Complacency", WHO Regional Office for South-East Asia, New Delhi, 1992

In Thailand, the virus may have found its way into an unwary general population, through successive waves of transmission between male clients and female commercial sex workers and from them to their spouses and other sexual partners. It is now estimated that there are about a million persons infected with HIV in India, 450,000 in Thailand and nearly 150,000 in Myanmar.

It is projected by WHO that by the year 1996, India will have 2-3 million HIV infected persons and 179,000 persons with AIDS. By the year 2000, Thailand will have 2-4 million people infected with HIV.

### 2.3 AIDS Situation in India

Since the first AIDS case was registered in Bombay in 1986, 310 cases have been reported to the Ministry of Health and Family Welfare from 18 States and Union Territories by 31 March 1993 (table 2.3.1). Maharashtra and Tamil Nadu are leading in the number of cases, having reported 93 and 92 cases respectively. They are followed by Punjab/Chandigarh (471), Delhi (31), and Kerala (16). The other States have reported from one to 6 cases. In 1992 alone, 227 cases were reported, as compared to 3 to 26 reported in the six previous years (figure 2.3.1)

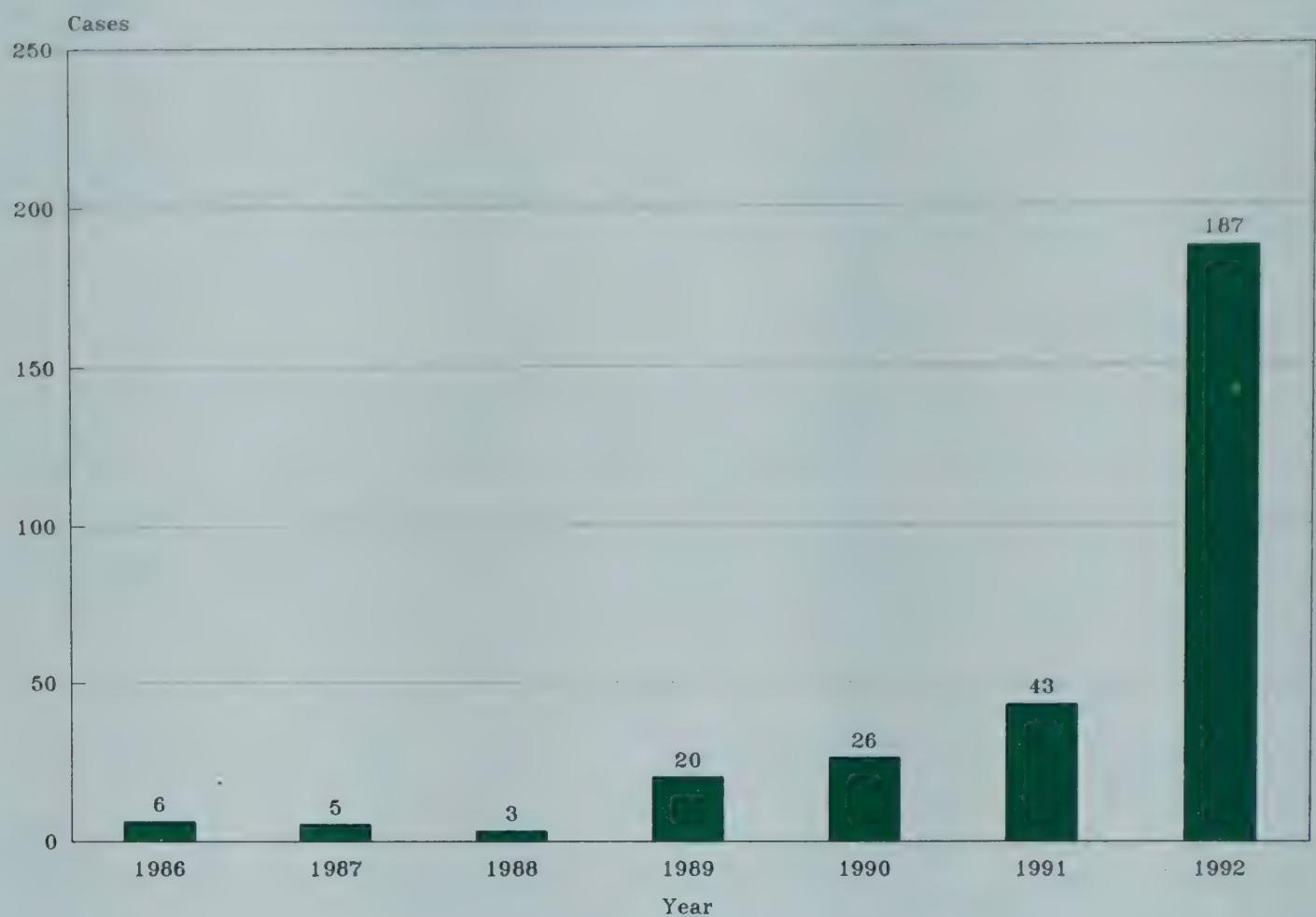
**Table 2.3.1**  
**Cumulative number of AIDS cases**  
**reported in India by State/Union Territory**

State/Union Territory	No. of cases
Andhra Pradesh	1
Assam	1
Delhi	33
Goa	2
Gujarat	2
Haryana	1
Himachal Pradesh	2
Jammu & Kashmir	1
Kerala	16
Madhya Pradesh	1
Maharashtra	93
Manipur	4
Pondicherry	6
Punjab/Chandigarh	47
Rajasthan	1
Tamil Nadu	92
Uttar Pradesh	1
West Bengal	6
<b>Total</b>	<b>310</b>

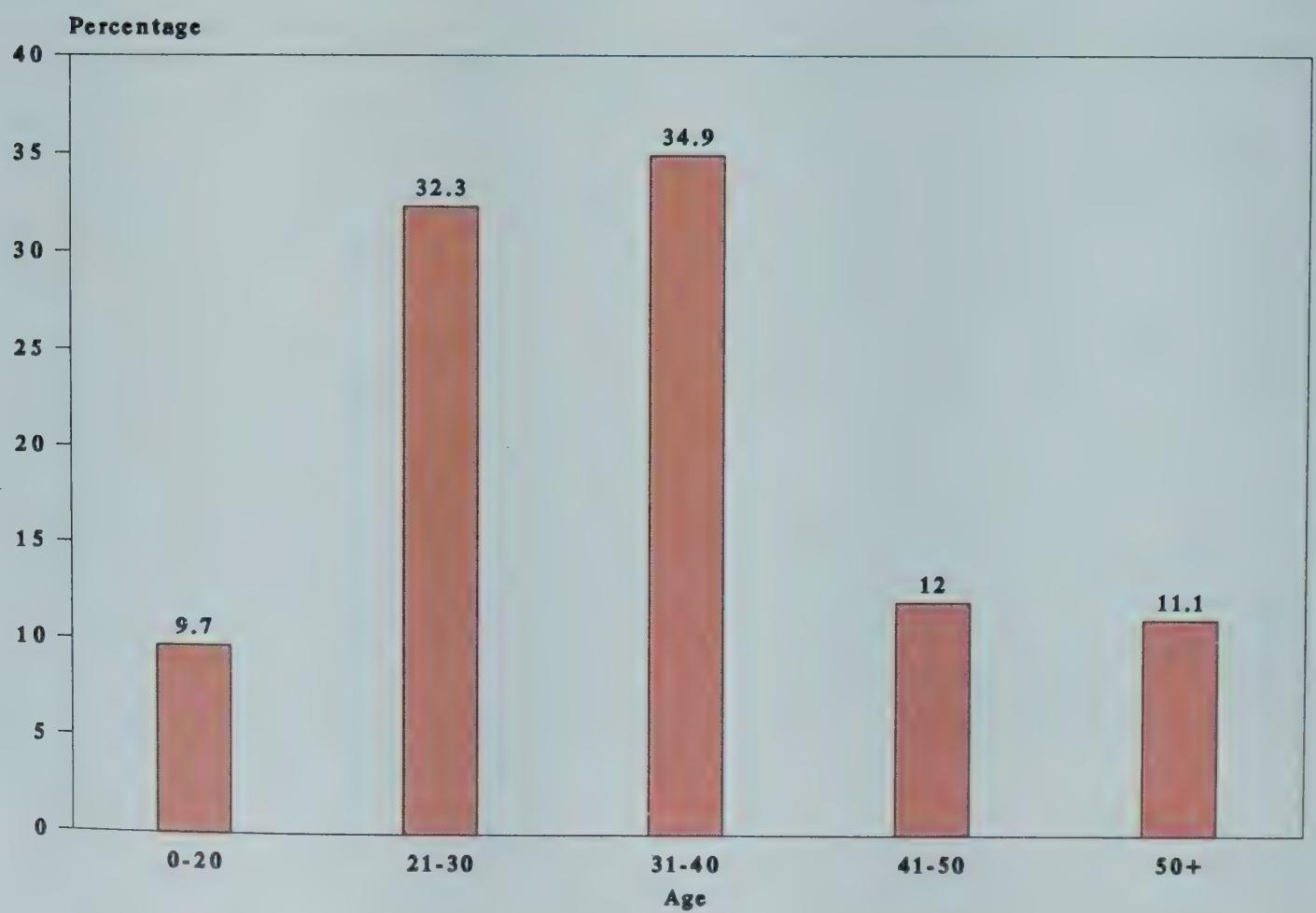
Among the probable means of these infections having been acquired multipartner sex dominates (75.3%), followed by blood transfusions (12.0%), and sharing unsterilized equipment by injecting drug users (6.5%). Eighty-three percent of all infections were acquired within the country. Almost 90% of the cases were below the age of 50 years and more than two thirds were between the ages of 20 and 40 years (figure 2.3.2).

As elsewhere the number of reported cases in India represent but a small fraction of the actual AIDS morbidity. The reasons accountable for a low surveillance efficiency include the difficulty involved in diagnosing AIDS and the lack of skills, as a limited number of physicians had been trained on AIDS case identification and management. According to the estimates based on HIV prevalence, the actual number of AIDS cases in India could be within the range of five to ten thousand.

**Figure 2.3.1**  
**AIDS cases reported in India, by year**



**Figure 2.3.2**  
**Distribution of 226 AIDS cases by age**

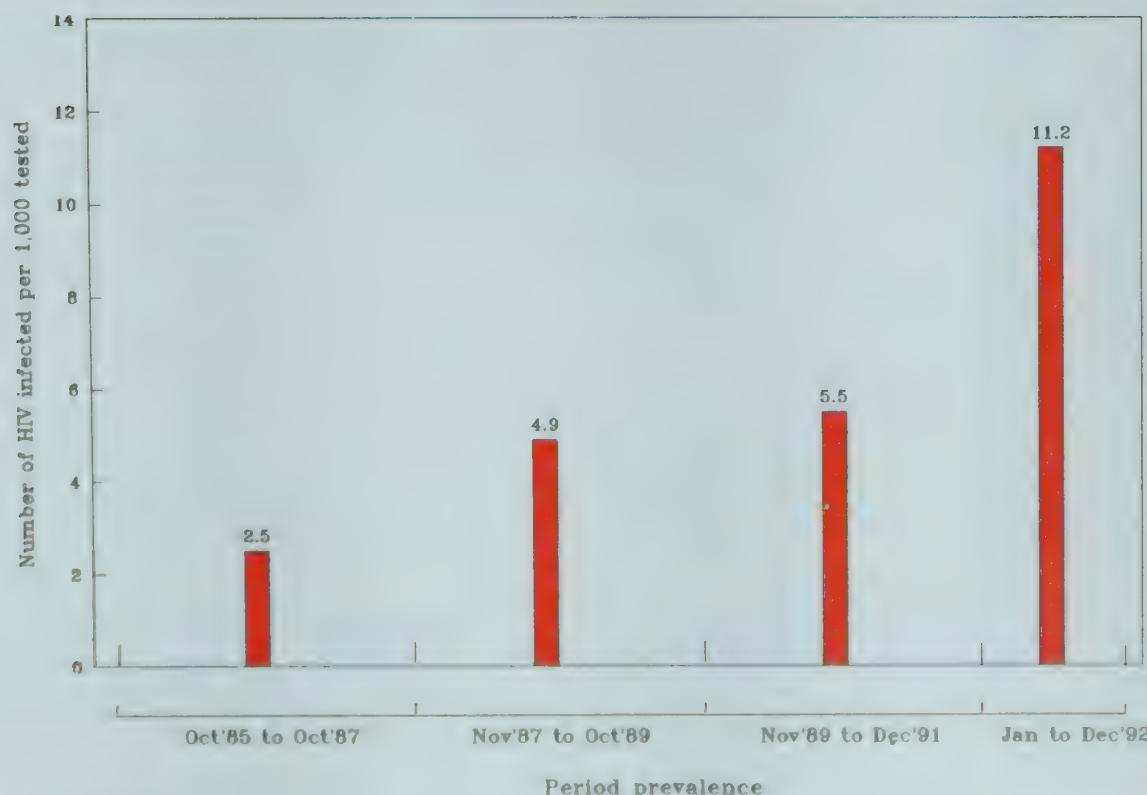


From October 1985 until the end of March 1993, 1,659,412 individuals had been tested for HIV through the nationwide surveillance network; and 11,849 were found to be infected with HIV. The seropositivity rate increased from 2.5 per 1000 in 1986 to 11.2 per 1000 by 1992 (table 2.3.2 and figure 2.3.3). HIV infected individuals were found in 26 States and Union Territories, basically everywhere where the testing facilities are available for surveillance, blood testing, or research purposes. So far HIV has not been detected in Tripura and five other States and Union Territories with a population smaller than one million, (specifically Arunachal Pradesh, Sikkim, Dadra & Nagar Haveli, Daman and Diu, and Lakshadweep).

**Table 2.3.2**  
**Progression of HIV seropositivity rates nationwide,**  
**for all groups tested, 1986-1992**

Period	No. tested	No. positive	Prevalence per/1000
October 1985 to October 1987	56,934	145	2.5
November 1987 to October 1989	307,343	1505	4.9
November 1989 to December 1991	863,110	4,764	5.5
January 1992 to December 1992	437,563	4916	11.2
<b>Total</b>	<b>1,664,950</b>	<b>11,330</b>	<b>-</b>

**Figure 2.3.3**  
**Progression of HIV seropositivity rates,**  
**nationwide, for all groups tested**

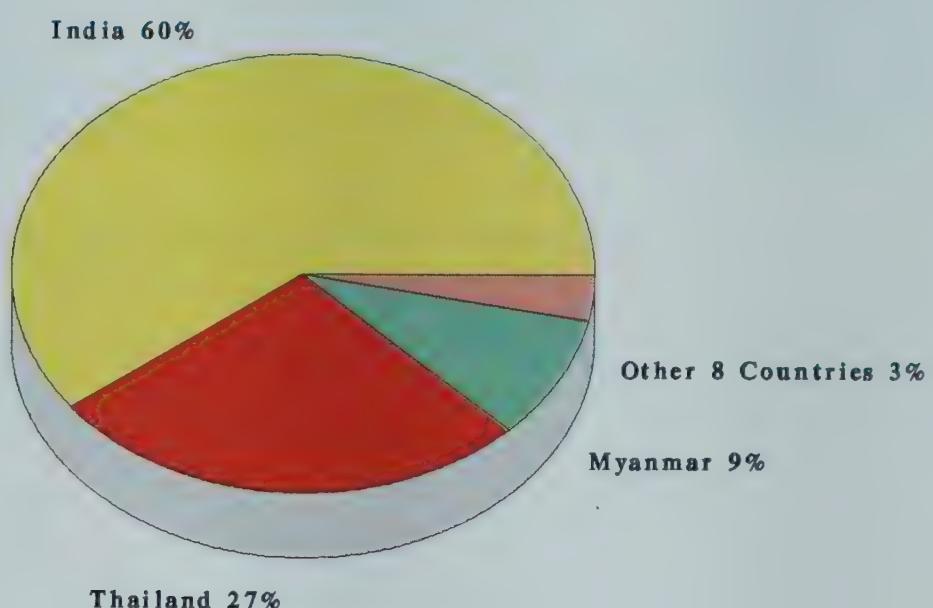


The HIV infection prevalence rate varies widely in different geographic areas and population groups. According to the available information, the major concentration of infection remains in Bombay which may contain 5% to 10% of the country's infected individuals. The other known hot spots are Pune, Madras and Vellore where the local research groups have conducted studies of commercial sex workers. In the North-Eastern states, a significant increase of infection in injecting drug users noticed initially in 1990 in Manipur, has now been found to extend to Nagaland and Mizoram as well. The latest studies have shown an HIV prevalence in injecting drug users of 54-74% in Manipur, 50% in Nagaland, and 6-10% in Mizoram (S. Sarkar, et al, unpublished report).

In November 1992, the Ministry of Health & Family Welfare and WHO undertook an exercise to assess the actual prevalence of HIV in the country. Having extrapolated available data on HIV prevalence in commercial sex workers, injecting drug users, antenatal clinic attendants and blood donors, the team has concluded that the number of HIV infected persons in India in 1991 slightly exceeded 600,000. Considering the progression of the prevalence rates in pregnant women and blood donors, it was estimated that by the end of 1992 more than one million persons in India were infected with HIV.

According to this estimate India has the largest number of HIV infected individuals among the countries of the WHO South East Asia Region (figure 2.3.4).

**Figure 2.3.4**  
**Distribution of the estimated 1,500,000 HIV infected cases among the countries of the WHO South-East Asia region**



Comparison of the period prevalence rates for various groups, calculated from the available official reports, reveals that the epidemic has developed as rapidly in India as was observed in some African countries in the mid eighties (table 2.3.3 and figures 2.1.3 and 2.3.5). Though the figures quoted are too few to be statistically significant, this trend is being confirmed by studies in selected areas of the country. For example, HIV prevalence in antenatal clinics attendants had reached 0.5% in Bombay and 1% in Imphal by 1992.

**Table 2.3.3**  
**HIV Period Prevalence Rates in Selected Populations of India**

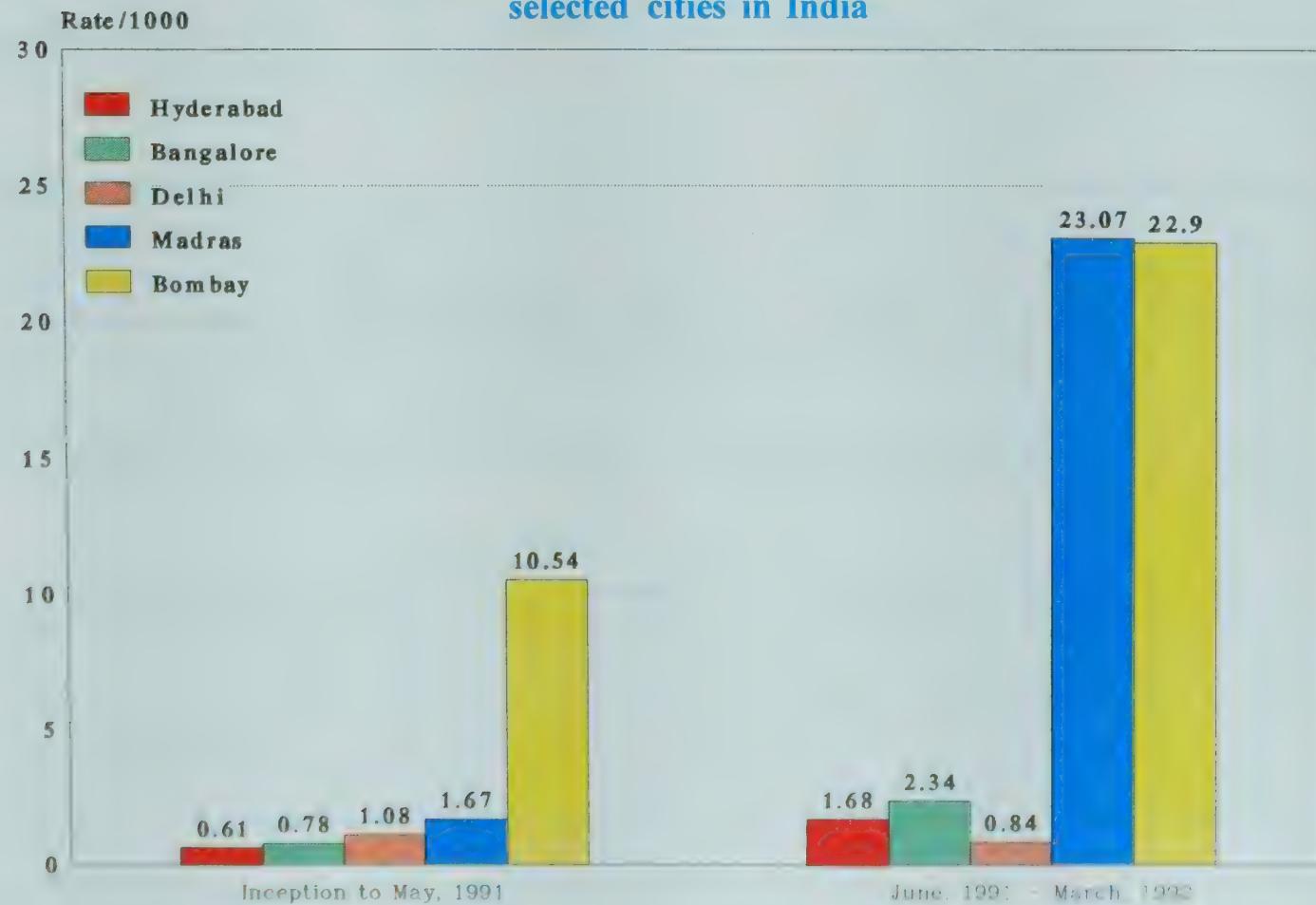
Group/prevalence	1991	1992
<b>Multipartner sex males:</b> (STD attendants, history)		
- tested	3,900	5,485
- positive	22	89
- rate/1000	5.6	16.2
<b>Blood donors*:</b>		
- tested	19,160	15,297
- positive	7	13
- rate/1000	0.37	0.85
<b>Pregnant women**:</b>		
- tested	2,344	6,031
- positive	2	7
- rate/1000	0.62	1.16

\* Actual periods compared are 1990 through May 1991 and June 1991 through March 1992.

\*\* Actual periods compared are 1990 through October 1991 and November 1991 through May 1992

Lack of information from rural and semi-urban areas at the moment does not allow estimates and projections beyond the major municipal centres.

**Figure 2.3.5**  
**HIV Prevalence rate in blood donors in selected cities in India**



### 3. THE RESPONSE

#### 3.1 Establishment of the Programme Managerial Teams

##### 3.1.1 Introduction

In order to accomplish the objectives of the National AIDS Control Programme, efficient programme management constitutes one of the most significant components of the overall Programme. Establishing an effective mechanism for inter-sectoral collaboration, strengthening of technical and research capabilities, enhancing programme managerial capability, efficient flow of funds and an in-built mechanism for monitoring and evaluation are some of the highly relevant management needs of the AIDS Control Programme. Taking these needs into account, an overwhelming emphasis has been accorded to the component of programme management in the Programme.

If we go back to the retrospect of the Programme, we may observe that the Government of India was prompt in reacting to the threat posed by the existence of HIV infection and AIDS cases in India and formulated a National AIDS Committee in 1986. On the basis of the recommendations of that committee, a National AIDS Control Programme was also formulated in 1986. In the following 4 years its activities focussed on HIV screening of so-called "Sexually promiscuous" groups and eventually blood donors. Some educational activities were also undertaken.

In 1989, with support from WHO, a Medium Term Plan for AIDS Control was developed with a US\$ 19 million budget to be provided from external sources. Project documents for the implementation of this plan were developed and implemented in 5 States/Uts, namely Maharashtra, Tamil Nadu, West Bengal, Manipur and Delhi. Initial activities focused on the reinforcement of programme management capacities as well as targeted IEC and surveillance activities.

Surveillance and prevention activities in the rest of the country were centrally planned by the office of the National AIDS Control Programme Officer in D.G.H.S. who at the same time was responsible for four other National Programmes.

In 1991 a number of donors indicated their interest to support Indian and accordingly a "Strategic plan for Prevention and Control of AIDS in India" was prepared for the 5 year period of 1992-1996. The Strategic Plan has to date received support from the World Bank, WHO and other international agencies for approximately half of the Plan's Programme. One of the important components of the Strategic Plan is programme management. Keeping in view the earlier management infrastructure available both at the National as well as State level, a number of management/coordinating bodies have been constituted at the Union and the State levels in order to ensure effective programme management.

In June, 1992, the National AIDS Control Organization (NACO) was officially created as the executive governmental organization to oversee AIDS prevention and control efforts in India. The NACO is supported in its task by a Multisectoral Committee and National AIDS Control Board as well as various specialized advisory committees. Likewise, each State and Union Territory are expected to set up similar multisectoral empowered committees as well as executive programme bodies to develop and implement AIDS prevention and control activities at the State/Union Territory level.

### 3.1.2 Objectives

The broad objectives of this programme component are as follows:

- a) Establishment of an effective Programme Management mechanism at the National & State levels.
- b) Provision of technical, financial & operational support to the staff & organizations implementing programme activities.

### 3.1.3 Strategies/Activities

#### 3.1.3.1 Strategy-I

The creation of intersectoral collaboration for AIDS Control and the mobilization of opinion leaders.

##### (a) National AIDS Committee

According to the strategic plan, the Government of India, Ministry of Health & Family Welfare has constituted a National AIDS Committee (NAC) under the chairmanship of the Minister of Health & Family Welfare with representatives from various sectors.

This forum has been formed to bring together various ministries, non-governmental & private voluntary organizations with a view to coordinate the Programmes activities. The Committee acts as the highest level deliberative body to oversee the performance of the Programme and to provide the overall policy directions. The Committee is also entrusted to forge multisectoral collaboration to enable the participating organizations to mobilize their own administrative network for various AIDS prevention projects.

The first meeting of the Committee was held in February 1993 under the Chairmanship of Union Health & Family Welfare Minister. The chairman requested all the members to send concrete suggestions to strengthen the prevention and control activities in the country. Most of the member organizations of the committee have appointed liaison officers for collaboration with the National AIDS Control Programme and some of these have even initiated creation of their own AIDS Committees.

##### (b) Multisectoral Committee

The Government of India has constituted a Multisectoral Committee under the chairmanship of Secretary (Health) to assist in the development of a coordinated policy to prevent and control the spread of HIV/AIDS in the country. The Committee decides on the strategies and mechanisms of such coordination and meets as frequently as it is deemed necessary.

The first meeting of the Multisectoral Committee has already been convened by Secretary (Health) in which the different Ministries/Departments have been briefed about their expected role in prevention and control of AIDS in the country.

### 3.1.3.2 Strategy-II

Development of an efficient mechanism for Programme Coordination & Management.

(I) **National level**

(a) **National AIDS Control Board**

A National AIDS Control Board has been constituted at the national level under the chairmanship of Secretary (Health) in order to approve NACO policies, to expedite sanctions, approve procurement and to undertake and award contracts to private agencies. The other major functions of the Board pertain to the approval of annual operational plan budgets, reallocation of funds between programme components, formation of the programme managerial teams and appointment of senior programme staff.

The Board exercises all financial and administrative powers which are beyond the powers of the National AIDS Control Organization and which the Department of Health, Government of India can exercise with the approval of Department of Expenditure, Ministry of Finance. No separate reference to Ministry of Finance for funding planned activities is required as the Ministry of Finance is represented on the Board.

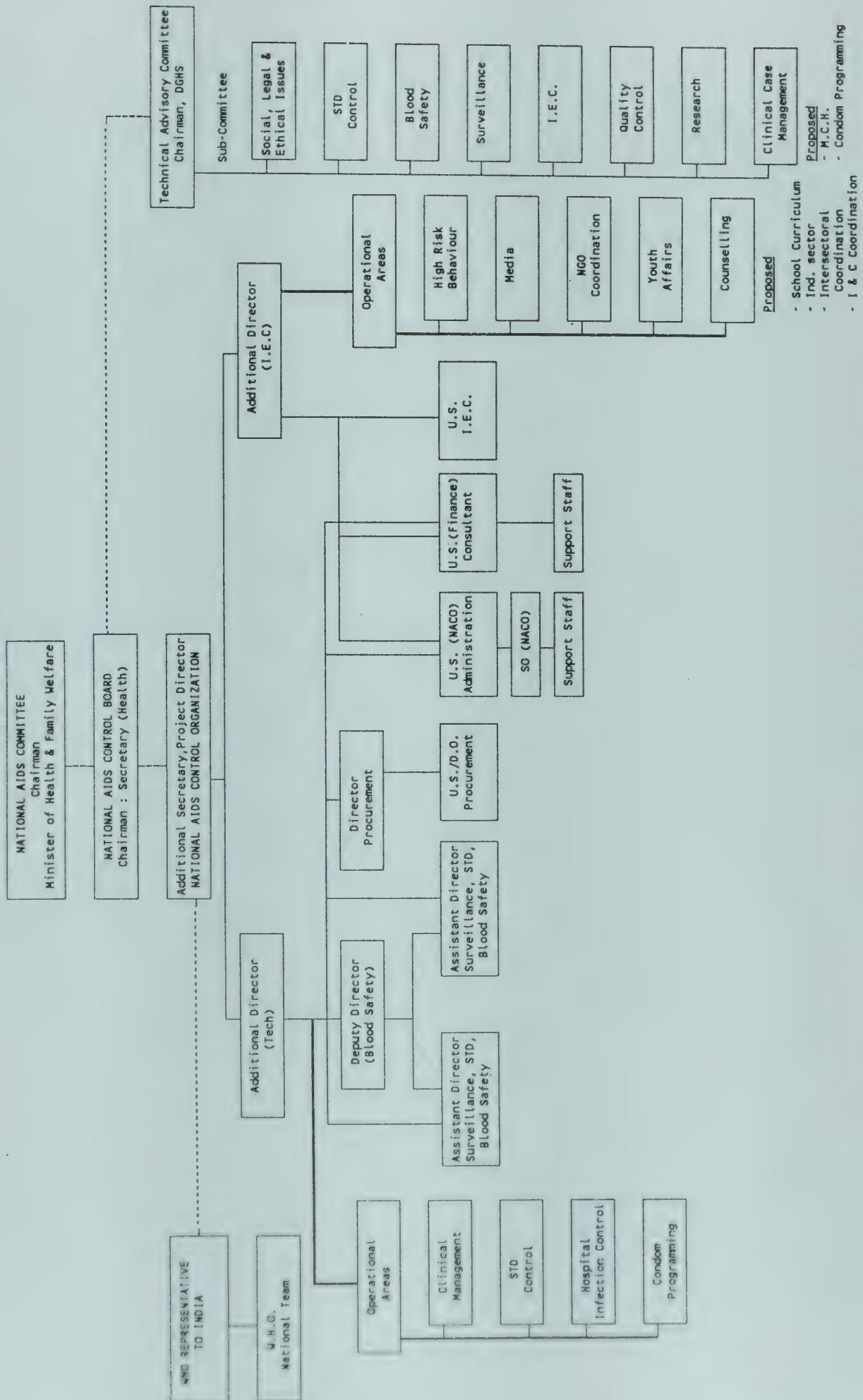
The Board meets quarterly or more frequently as may be required by the Chairman of the Board or Director of the National AIDS Control Organization.

Two meetings of the Board were held in 1992 and issues such as sanctioning of staff at the national and state levels and a special scheme (University Talk AIDS) for involving the youth by Department of Youth & Sports discussed.

(b) **National AIDS Control Organization**

In order to combat the onslaught of the AIDS epidemic effectively, an exclusive separate wing comprising a dedicated staff has already been established under the Department of Health, Ministry of Health & Family Welfare. The organization is headed by a Project Director at the Additional Secretary level, who is being assisted by Technical and Administrative staff including two Technical Officers at the Joint Secretary level (figure 3.1.1). The Organization exercises all financial and administrative powers as vested in the Department of Health, Government of India.

**Figure 3.1.1**  
**Organizational Structure of National AIDS Control Programme**



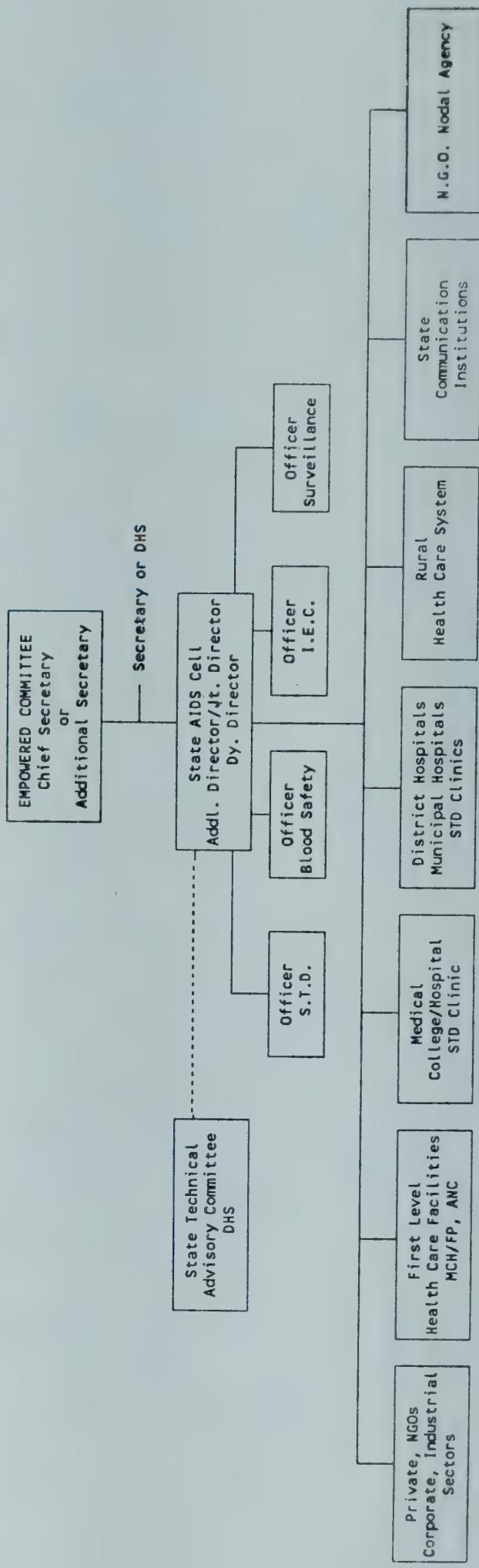
## (II)

### State level

#### Strengthening Programme Managerial Capacity at the state level.

In order to strengthen the programme management at the State level, the State Administrations are establishing their own managerial bodies which include State AIDS Cells, Technical Advisory Committees and Empowered Committees as per the guidelines of Strategic Plan. The structures of the State-level AIDS Cells are shown in figure 3.1.2 and the progress in the establishment of State Managerial Teams is shown in figure 3.1.3.

**Figure 3.1.2**  
**Organizational Structure of the State AIDS Control Programme**



**Figure 3.1.3**  
**Progress in Developing the State AIDS Programmes as at 31 March 1993**

S.No	State/Union Territory	Letter of Undertaking	ACP Cell authorized	Empowered Committee created	Operational Plan submitted	Operational Plan approved by NACO	State Programme Officer appointed
1.	Andhra Pradesh	/	/	/	/	/	/
2.	Arunachal Pradesh	/	/	/	/	/	/
3.	Assam	/	/	/	/	/	/
4.	Bihar	/			/	/	
5.	Goa	/	/	/	/	/	/
6.	Gujarat	/	/		/	/	/
7.	Haryana	/	/	/	/	/	/
8.	Himachal Pradesh	/	/	/	/	/	/
9.	Jammu & Kashmir						/
10.	Karnataka	/	/		/	/	/
11.	Kerala	/	/		/	/	/
12.	Madhya Pradesh	/			/	/	/
13.	Maharashtra	/	/	/	/	/	/
14.	Manipur	/	/	/	/	/	/
15.	Meghalaya						/
16.	Mizoram	/	/	/	/	/	/
17.	Nagaland	/	/	/	/	/	/
18.	Orissa	/		/	/	/	/
19.	Punjab	/			/	/	/
20.	Rajasthan	/	/		/	/	/
21.	Sikkim	/	/	/	/	/	/
22.	Tamil Nadu	/	/	/	/	/	/
23.	Tripura	/	/	/	/	/	/
24.	Uttar Pradesh	/	/	/	/	/	/
25.	West Bengal	/	/		/	/	/
26.	A & N Islands	/	/		/	/	/
27.	Chandigarh	/		/	/	/	/
28.	Dadra & Nagar Haveli	/			/	/	/
29.	Daman & Diu	/			/	/	/
30.	Delhi	/	/	/	/	/	/
31.	Lakshdweep	/	/		/	/	/
32.	Pondicherry	/	/		/	/	/
	<b>Total</b>	<b>30</b>	<b>23</b>	<b>17</b>	<b>30</b>	<b>30</b>	<b>31</b>

**(a) Empowered Committee**

At the State level, an Empowered Committee has been constituted by the States either under the chairmanship of Chief Secretary or Additional Chief Secretary at par with the National AIDS Control Board.

This committee makes the policy decisions for implementation of the AIDS Control Programme in the respective State and approves administrative and financial actions which otherwise would have to be approved by the State Department of Finance.

(b) **State AIDS Cell**

A dedicated cell in the Directorate of Health Services of the States has been formed in nearly 30 States/Uts. In the larger States, this Cell is headed by a State AIDS Programme Officer at the level of Additional Director. In the smaller States the Cell is headed either by a Joint Director or a Deputy Director. The State AIDS Programme Officer is supported by other staff in the key programme areas of Health Education, Sexually Transmitted Disease, Surveillance and Blood Safety. The Cell is responsible for the day-to-day monitoring and supervision of the programme in each state.

#### 3.1.3.3 **Strategy -III**

To strengthen the Technical and Research capabilities of the Programme.

(I) **National level**

(a) **Technical Advisory Committee**

The Technical Advisory Committee (TAC) has been established an advisory body to NACO. This Committee has got 4 sub-committees (as outlined in figure 3.1.1) including the programme areas of I.E.C, Sexually Transmitted Diseases; Social; Legal and Ethical issues; Blood Safety; and Surveillance.

(II) **State level**

#### **State Technical Advisory Committee**

On the pattern of the National Technical Advisory Committee, the State Governments are also forming State Technical Advisory Committees to provide policy guidance on the technical matters in each respective state.

#### 3.1.3.4 **Strategy-IV**

**Monitoring, review and evaluation of the programme.**

The Programme is being closely monitored by the NACO and State AIDS Committees. The monthly surveillance reports are being sent to the NACO which are then collected and compiled into regular status reports on the epidemic's progress in India.

Programme review constitutes an integral aspect of the States Committees and NACO activity. Periodic reports from the states are the major basis for the programme review. The annual programme review conducted by the State, NACO & TAC will be reported to the Board and all participating parties.

## 3.2 STRENGTHENING OF TECHNICAL CAPABILITIES AT THE NATIONAL LEVEL -TECHNICAL ADVISORY COMMITTEE AND ITS SUB COMMITTEES

### 3.2.1 Introduction

One of the most pertinent and significant strategies under the Programme Management component of the 'Strategic Plan for the Prevention and Control of AIDS' is the strengthening of technical and research capabilities at the national level. Taking into account the intricate nature of technical issues involved in this programme, a Technical Advisory Committee (TAC) has been constituted under the Chairmanship of the Director General of Health Services as a part of this strategy. The TAC would act as a clearing house for all the major technical aspects of the National AIDS Control Programme.

### 3.2.2 Objectives

To develop and strengthen the technical and research capabilities of the Programme at the national level.

### 3.2.3 Strategies/Activities

For the pursuance of its objectives, the terms of reference for the Technical Advisory Committee are as follows:

- (a) Developing the strategies and technical parameters of the AIDS control programme;
- (b) Developing operational guidelines;
- (c) Designing training schedules for National and State workshops; and
- (d) Designing training and educational materials.

The Committee is expected to meet at least four times per year. It can constitute various sub-committees subject to the specific technical issues involved. Accordingly, it has already formed sub-committees in a number of areas, including IEC, STDs, Surveillance, Blood Safety, and Social, Legal and Ethical issues.

The first meeting of the Technical Advisory Committee was convened in December 1992. The recommendations pertaining to different issues involved and the follow-up actions initiated are summarized below.

#### 3.2.3.1 HIV Testing

- (a) For Blood Safety, only one common test of high sensitivity, reliability and reproducibility for both HIV-1 and HIV-2 has been recommended to be carried out by Zonal Blood Testing Centres;
- (b) For surveillance purposes, a similar strategy has been suggested for initial testing. However, in case of positivity, a specific test should be performed as to ascertain the type of HIV antibodies i.e. anti HIV-1 or HIV-2 or both. This is to be followed subsequently by a further ELISA/Western Blot test;

- (c) For diagnostic purposes, the strategy for testing is similar to (b) above;
- (d) HIV testing for other purposes: It has been agreed in principle to allow the private sector to carry out HIV testing for other varying purposes e.g. visa, voluntary testing, legal requirement, etc.

The recommendations of the Committee have been circulated to all concerned including the State Programme Officer, in charge of the HIV testing centres, I.C.M.R., D.B.T. and WHO for their information and necessary action.

### **3.2.3.2 Surveillance Centres**

It was agreed that the existing 62 surveillance centres should be delinked from the testing centres for blood safety purposes and that these surveillance centres should, primarily, be involved in sentinel surveillance.

### **3.2.3.3 Reference Centres**

The reference centres will continue to play their usual role of apex institutions for surveillance centres. As per the above-mentioned recommendations, the surveillance centres have been reorganized to delink them from the HIV testing centres for blood safety purposes. The lists of the reorganized surveillance centres, reference centres and zonal blood testing centres are attached in Annexes 3.2.1, 3.2.2 and 3.2.3.

### **3.2.3.4 Quality Control**

A sub-committee has been constituted under the Chairmanship of the Director, National Institute of Biologicals, Government of India, to ensure the quality control of HIV testing for different purposes. The first meeting of the sub-committee was held in February 1993. It was decided to test samples of HIV kits at different stages in the delivery chain i.e. at the procurement point, at the delivery point and at the user's point. For this purpose, two national centres have already been identified and a sequential network has been defined for sample testing from Zonal Blood Testing Centres, Surveillance Centres and Reference Centres, as well as for general HIV test kit quality control.

### **3.2.3.5 HIV Testing for the purpose of pre-employment screening for individual curiosities**

The matter was referred to sub-committee on Social, Legal and Ethical issues already formed under National AIDS Control Organization. The first meeting of the above sub-committee was held under the Chairmanship of the Additional Secretary and Project Director/NACO. A preliminary discussion on the above issue resulted in the view that such testing was neither necessary nor advisable given the cost and ethical implications involved.

### **3.2.3.6 Criteria for Diagnosis of AIDS Cases**

The need was recognized for the validation of the current definition of AIDS cases as provided by WHO and CDC in the Indian context, and a sub-committee under the Chairmanship of Prof. A.N. Malviya, Head, Department of Medicine, AIIMS was established for this purpose. Since the total number of reported cases to date is 310, the sub-committee will continue its discussions before coming forward with proposals for a revised definition for the diagnosis of AIDS cases in India.

### **3.2.3.7 Criteria for providing components, separation facilities and availability of anti-haemophilic factor for treatment of haemophilics**

The timely establishment of the planned component separation facilities in the country was recommended in the meeting. Action has already been initiated during the year to establish the component separation facilities at six locations.

### **3.2.3.8 HIV testing by private and commercial laboratories**

The members recommended that National Guidelines should be immediately laid-down for the establishment of HIV testing in private and commercial laboratories. It was felt that potential profiteering in this area needs to be discouraged and that fees should be according to market rates.

### **3.2.3.9 Non-discrimination of HIV and AIDS Cases**

The Committee reemphasized the existing government policy to ensure non-discrimination of HIV-infected persons and persons suffering from AIDS.

### **3.2.3.10 Research**

An urgent need was felt to place due emphasis on the component of operational research as relevant to AIDS control activities. Accordingly, a sub-committee has been constituted under the Chairmanship of the Director General, I.C.M.R., which would identify the priority areas for operational research in the field of HIV/AIDS Prevention and Control. The first meeting of this sub-committee on research was held in February 1993. It was decided that research activities should be of short duration (not exceeding one year), and should be operational in character so that the results could be utilized for better implementation of National AIDS Control Programme.

### **3.2.3.11 Procurement of HIV kits**

The policy of the procurement of kits through WHO was agreed to. However, all kits would be evaluated by the Department of Biotechnology before being used and the results of these evaluations will be disseminated as necessary. It was further felt that preference will be given to those manufacturers who are ready to manufacture these kits indigenously here in India in a phased manner.

### 3.3 INTERSECTORAL COLLABORATION

#### 3.3.1 Introduction

Given the basic fact that the challenges posed by HIV/AIDS have implications far beyond the health sector, the responses to these challenges must also, of necessity, encompass the broadest base possible throughout the public and private sectors of society in India. Recognizing this fact, the National AIDS Control Organization seeks to enlist and encourage the involvement of every possible actor, public or private, large or small, in the fight against HIV/AIDS/STD in India.

A Multisectoral Committee has been established to provide policy guidance and coordination to AIDS Prevention and Control activities with most major government ministries and departments represented on this Committee. As a consequence, all Union Ministries and Departments which could have any conceivable link with NACO and its programme have been invited to identify focal points in their Ministry/Department who will serve as the responsible officers for the development of Ministerial/ Departmental plans of action in the battle against this new challenge. Similar steps are envisaged at State and Union Territory Government level.

Beyond the involvement of all associated Ministries within the structure of the Government of India and the respective State governments, the fight against HIV/AIDS/STD cannot succeed without in addition assuring the full association of Non-Governmental and Private Voluntary Organizations, groups and individuals as well. To date, there has fortunately been an enthusiastic response from various sectors, which we will detail below. It is through the involvement of these groups, many of whom already have well-established bases of operation within certain well-defined geographical or social sectors, that NACO hopes to ensure that everyone will eventually be reached by HIV/AIDS/STD prevention and control programme efforts.

Another means by which NACO attempts to ensure the sort of coordination of efforts and resources involved in this struggle is through quarterly meetings of all "interested" or "participating" parties who are already involved in or interested in becoming involved in the prevention and control of HIV/AIDS/STD in India. Such meetings provide an opportunity for NACO to highlight recent programmatic developments and progress in the fight against HIV/AIDS/STD, while also affording other parties (bilateral and multilateral donors, NGOs or other Governmental Departments or Ministries) the opportunity to discuss the national programme's direction and priorities. Such periodic gatherings also enable NACO to emphasize those programme components of most immediate concern, as well as to highlight areas where additional support, resources and action are needed.

##### 3.3.1.1 Collaboration within the Government of India

###### National Service Scheme

Beyond the involvement of the Ministry of Health & Family Welfare, the Ministry of Human Resource Development (and specifically the National Service Scheme of the Department of Youth and Sports) has responded enthusiastically to the challenges posed by HIV/AIDS/STD prevention and control in the country. Through the innovative "Universities Talk AIDS" programme initiated with the assistance of WHO, the NSS has undertaken a process of providing information to one of the most important target

audiences--young adults. NACO will provide additional assistance to the NSS in the coming year to further expand this successful activity throughout the country.

### **Ministry of Information & Broadcasting**

The Ministry of Information and Broadcasting has agreed to the allocation of free prime time television slots on Doordarshan for HIV/AIDS awareness campaigns, and has agreed to provide further time at 25% of the normal rates.

### **Other Ministries/Departments**

All Government Ministries/Departments with activities related to the general programme of HIV/AIDS/STD prevention and control have been requested to identify a nodal officer to be responsible for the coordination and development of that Ministry/Department's activity plan in collaboration with NACO. A total of 29 nodal officers have already been identified, and plans are underway to assist each with the setting-up of their action plans.

### **The Indian Council of Medical Research**

Involved in the issues of HIV and AIDS since the very beginning, the ICMR has been a crucial catalyst in the development of various aspects of the Programme, particularly those relating to Surveillance and Research and to Blood Safety and Laboratory Development. In the past year ICMR has been integral in organizing the training of State AIDS Programme Officers and State AIDS Epidemiologists in the techniques of Sentinel Surveillance of HIV. These training programmes have assisted in the development of surveillance protocols for all States and Union Territories in the country.

### **Legal and Administrative Rules, Guidelines and Notifications**

The Government of India has issued notifications under the Drugs and Cosmetics Act regarding the establishment of blood banks (for the improvement of blood safety) as well as for the revision of Schedule "R" of the Drugs and Cosmetics Act regarding the standards for the production of rubber latex condoms to meet internationally accepted criteria. Efforts are now also underway to encourage the amendment or outright repeal of administrative directives and laws which encourage stigmatization of and/or discrimination against HIV-positive persons and persons suffering from AIDS, as international experience has clearly indicated that such regulations tend to inhibit a successful HIV/AIDS/STD prevention and control programme.

## **MULTILATERAL/BILATERAL AGENCIES**

### **United Nations System-WHO**

As the lead United Nations Agency for HIV/AIDS Prevention and Control, the World Health Organization has provided policy leadership, technical assistance and financial support to HIV/AIDS prevention and control activities in India. In addition to four full-time staff members assigned to the office of the WHO Representative to India (one on loan from WHO Headquarters), long- and short-term consultants have also been recruited to provide additional technical advice and expertise to the country. In the past year funds totalling more than three million U.S. Dollars have been channeled to HIV/AIDS/STD programme activities in India through WHO Regular and Extrabudgetary sources.

WHO has also assisted NACO in the mobilization of the United Nations family of organizations for the work of HIV/AIDS/STD prevention and control in India. A brief summary of the activities undertaken by each agency is as follows:

- **International Development Association (World Bank)** A Credit Agreement has been signed with the Government of India providing US \$ 85 million to support a part of the overall National Strategic Plan for HIV/AIDS/STD Prevention and Control in India.
- **UNICEF** The integration and support of State-level IEC activities has been a focus of UNICEF action in the past year, with financial and technical support to States' AIDS Programme activities coming from the well-developed network of regional offices within the UNICEF country structure.
- **United Nations Development Programme (UNDP)** The Regional Project for HIV/AIDS of UNDP has organized a number of meetings in the country to mobilize attention and support for HIV/AIDS prevention, up to the level of the Government's Planning Commission. One such meeting also led to the development of draft project proposals from NGOs in the North Eastern States targeted at intravenous drug users in that area of the country. Five of these proposals are now in the final stages of obtaining funding from NACO and SIDA (Sweden).
- **International Labour Organization (ILO).** The ILO country office has recently taken up the challenge of involving their traditional counterparts--labour unions, management and business leaders--in the effort against this epidemic. Programme proposals are being developed with a number of regional business Chambers of Commerce, and a pilot programme for the integration of HIV/AIDS/STD prevention and control activities will be launched during 1993.

In addition, on-going discussions with UNFPA, UNDCP, and UNESCO are providing opportunities for the integration of HIV/AIDS/STD activity programming and planning into already on-going project activities supported or implemented by these agencies.

### **Bilateral Donor Agencies**

Assistance to national and state level efforts to prevent and control the spread of HIV/AIDS/STD have also found encouraging support amongst the local bilateral donor community. Highlights of the major contributions made and planned are as follows:

- **The Swedish International Development Authority (SIDA)** Sweden has already contributed almost 1.5 million U.S. Dollars (through WHO) to India, and has just pledged a further 90 million Swedish Kroner (\$ 12.5 million) to NACO through WHO for the coming three years, primarily in support of IEC and STD programme activities. SIDA is also considering proposals for provision of direct support to NGO project proposals for HIV/AIDS prevention and control activities in the North Eastern states.
- **The U.S. Agency for International Development (USAID)** USAID has contributed 1.8 million U.S. Dollars (through WHO) for the modernization of 65 zonal blood centres and certain reference centres throughout the country. Additionally, it is planned to release up to U.S. \$ 10 million over the coming seven

years in support of NGO-based and implemented HIV/AIDS/STD prevention and control activities in Tamil Nadu, focussing primarily upon IEC and condom promotion.

**- The Norwegian Agency for Development (NORAD)** In addition to extensive support to NGO activities throughout the country, NORAD has recently agreed to contribute U.S. \$ 100,000 to finance (for one year) the All India Institute of Health and Public Hygiene's HIV/AIDS/STD intervention project developed in collaboration with WHO and NACO. NORAD has also pledged more than US \$ 300,000 in support of a national physicians' training programme in collaboration with NACO and WHO.

**- The Overseas Development Administration (ODA)** ODA has recently completed a mission to West Bengal for the development of an HIV/AIDS/STD prevention and control project focussing upon IEC and STD prevention strategies in well-defined areas of the State. The estimated level of support to this project would be 1.5 million Pounds (Sterling) for a three year period.

**- The European Community (EC)** The EC has earmarked 500,000 ECU for the support of HIV/AIDS/STD activities in the city of Bombay (through a local NGO), as well as for specific support for the improvement of the STD Control Programme and the Training of Health Workers in the State of Maharashtra.

## **NON-GOVERNMENTAL ORGANIZATIONS**

In addition to Governmental, Multilateral and Bilateral channels, strong and often innovative support for HIV/AIDS/STD activities has been demonstrated by the community of Non-Governmental and Private Voluntary organizations in India. It has been repeatedly acknowledged by NACO that NGO's and PVO's are necessary and complementary actors on this stage, as it is beyond the realm of either the Union or State Governments to consider tackling this problem alone. In fact, national guidelines for the identification and involvement of Non-Governmental Organizations in the fight against HIV/AIDS/STD are in the final stages of preparation, and should be released sometime in mid-1993.

Wide-ranging support has been found throughout the NGO and PVO community for the development and integration of HIV/AIDS/STD prevention and control activities into their existing programme activities. Major support has been provided by local offices of international NGO's such as the Ford Foundation and Population Services International. National NGO's, such as the Christian Medical Association of India (CMAI) and the Voluntary Health Association of India (VHAI) have also proven instrumental in the implementation of certain aspects of HIV/AIDS/STD prevention and control throughout the country.

In addition, as noted above, numerous corporate sector organizations, such as the Confederation of Indian Industry and the Bengal Chamber of Commerce and Industry, have begun to develop programmes in collaboration with NACO for the integration of HIV/AIDS/STD prevention and control activities into on-going health care, educational and other social sector activities already carried out under the auspices of the corporate sector.

## 3.4 BEHAVIOUR CHANGE THROUGH INFORMATION, EDUCATION AND COMMUNICATION

### 3.4.1 Introduction

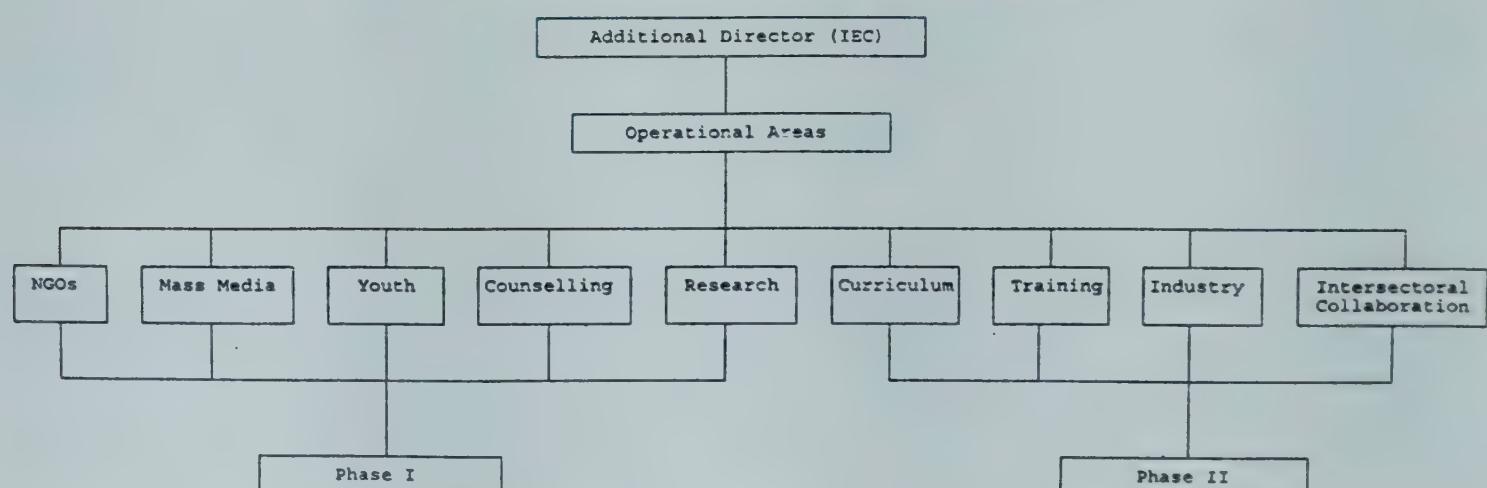
Communicating about AIDS/HIV and STDs is extremely difficult as such communications necessitate discussion of sexual practices, a topic many people in many cultures would rather leave undiscussed. Furthermore, to be effective such communication must be brought to a very personal level for it to be effective. Only if each individual examines his/her personal behavior in the light of the AIDS epidemic and makes a positive behavior change can any impact be made. Consistent messages from all channels - mass media, traditional media, health care workers, and interpersonal channels need to work in tandem to achieve this objective.

The Strategic Plan for AIDS Prevention and Control in India gives prime importance to information, education, and communication (IEC) and social mobilization strategies to combat the spread of HIV. These include:

- Advocacy
- Intersectoral collaboration
- Mass Media
- Targeted interventions
- Involvement of NGOs
- Training
- Research

To achieve these goals the IEC team at the central NACO office is headed by an Additional Director with the overall duties of guiding the NACO activities on IEC and counselling (see figure 3.4.1). Supporting this position are, at present, five consultants serving as Operational Officers in the following areas: Mass Media, NGOs, Youth Activities, Counselling, and High Risk Behavior Research. Additional officers in the area of Industry, Intersectoral Collaboration, Training & Curriculum Development are to further strengthen the team in the near future.

**Figure 3.4.1**  
**The IEC Consultancy Support Structure**



### 3.4.2 Current knowledge and attitudes towards AIDS

Ad hoc efforts have been underway in many parts of the country to educate populations on AIDS, its transmission and prevention. To support those efforts, a number of small studies with targeted populations have taken place to ascertain current knowledge, attitudes and practices related to AIDS and STDs. These include studies by the Voluntary Health Association of India, National Service Scheme, Tata Institute of Social Sciences, and some market research firms. Quantitative and qualitative studies have been conducted among youth, students, injecting drug users, sex workers and clients of sex workers.

Although it is not possible to draw general conclusions from the limited studies, the following statements (see figure 3.4.2) held true, for the most part, in all studies.

#### Figure 3.4.2 Common findings of HIV/AIDS related Social Research

- o Most individuals do not have accurate, complete information on AIDS.
- o The direct link between STDs and AIDS is not clear to most people.
- o STDs are not perceived of as serious conditions, since they are curable.
- o There is a belief that HIV transmission and AIDS is only found in limited groups such as foreigners, homosexuals, prostitutes, and drug users.
- o There is an attitude that AIDS "can't happen to me", and that general AIDS is not a problem of major concern for India.

The overall strategies and activities of the IEC component are aimed at redressing this situation.

### 3.4.3 Objectives

The overall objectives of this component are as follows:

- To raise awareness, knowledge and understanding among the general population about AIDS and HIV infection, routes of transmission and methods of prevention;
- To promote safe practices such as condom use, sterilized needles and syringes, and safe blood through the promotion of voluntary donation.
- To mobilize all segments of society to integrate AIDS messages and programming into existing activities.
- To ensure that all relevant health workers are trained in AIDS communications and coping strategies and thereby strengthen technical and managerial capabilities.

### 3.4.4 IEC Strategies

IEC programming cannot exist in isolation. Educational messages and information need to be backed up with condom programming, STD services and informed, well-trained health care workers. Integrating IEC into the other ongoing components of the National AIDS Control Programme, such as STD programming, condom programming and blood safety is essential to the success of the programme as a whole.

To streamline this work, all efforts are being made to tap the wealth of communications expertise available in Institutes of Communication, NGOs, commercial advertising and the private sector.

The IEC strategies outlined are as follows:

#### Advocacy

It is necessary to convince numerous policy makers and opinion leaders of the seriousness of the AIDS epidemic and of the need for securing the human rights of those afflicted.

#### Activities and Plans

- NACO has been holding orientation and planning sessions with the industrial sectors and chambers of commerce.
- Meetings have been held with the Railway Board, prominent medical and sports persons.

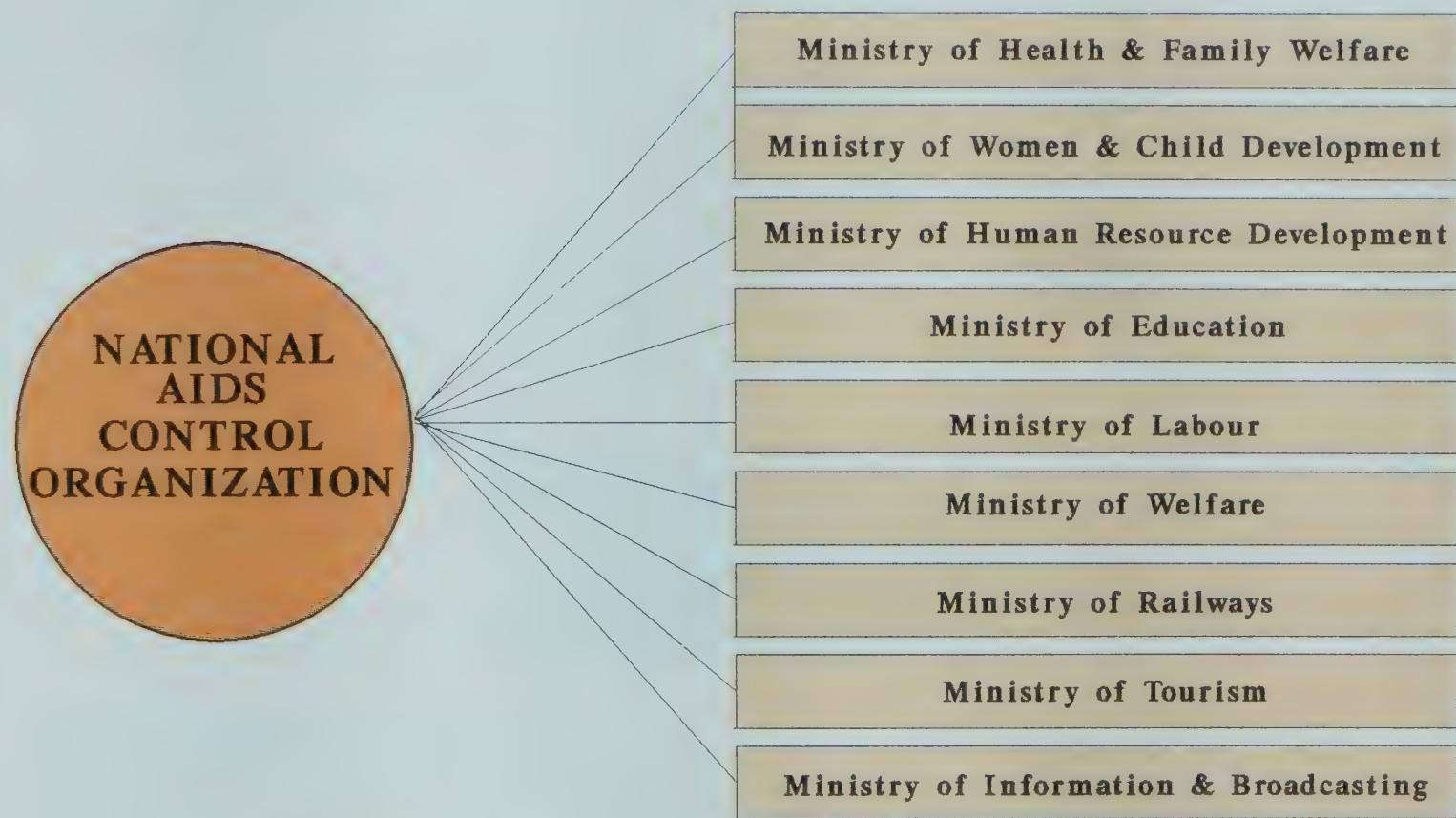
Plans are being made to hold a series of orientation sessions with members of parliament and IAS officers. A package of materials for use in advocacy is being prepared.

#### Intersectoral Collaboration

AIDS is not a medical issue, but an issue and threat to all of society. Therefore, the health sector alone is not sufficient to combat the spread of HIV infection. All sectors must get involved. One major strategy is to tap the networks available within the government sector and to tap private sector networks and resources available in associations, organizations and in the industrial sector. In the government sector, it is essential that each ministry form a committee on AIDS in order to begin organizing programmes to educate their own workforce and the networks within which they provide services to the community. Every possible network, governmental and non-government, should integrate AIDS programming into their agendas.

The initially targeted ministries are the Ministry of Family Welfare, Ministry of Women and Child Development, Ministry of Education, Ministry of Labour, Ministry of Welfare, Ministry of Railways, Ministry of Tourism and Ministry of Information and Broadcasting. (see figure 3.4.3).

**Figure 3.4.3**  
**Intersectoral Collaboration - Phase I**



### Activities & Plan

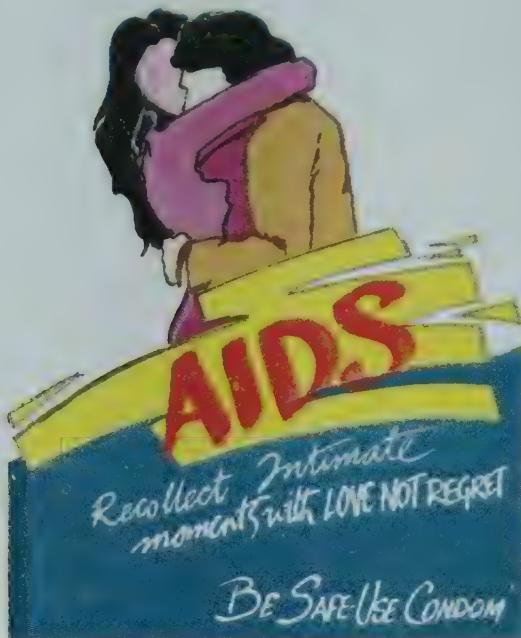
#### General

- A preliminary intersectoral meeting was also held to discuss the various ways to enhance inter-ministerial and governmental/non-governmental cooperation.
- All Ministries have identified officers as focal point for AIDS activities.
- Some Ministries have identified task forces to review the situation and have initiated education activities.

#### Youth

- The Department of Youth Affairs and Sports, Ministry of Human Resource Development has taken a pioneering lead in AIDS prevention and control among youth with a programme entitled Universities Talk AIDS implemented by the National Service Scheme. Initiated in 1991 with assistance from WHO, the programme is now gearing up to reach all major Universities and +2 level schools collaborating with the NSS in the country with technical and financial support from NACO and WHO. They have produced a series of IEC materials for students and are in the process of developing a comprehensive training module for youth leaders in the NSS system.

**A poster design developed by students under the  
University Talk AIDS (UTA) Project**



- In order to reach the rural areas the Department of Youth Affairs and Sports also organized a multimedia workshop using rural artforms to disseminate information on HIV/AIDS. Over 70 artists belonging to various artforms like puppetry, magic, harikatha, quawali, nautanki, folk dance and music participated and developed messages.

- In collaboration with the Commonwealth Youth Programme Asia Center, the Department of Youth Affairs and Sports organized a national workshop in Chandigarh in March 93. In this workshop over 35 participants belonging to various youth organizations including NSS, Bharat Scouts and Guides, and Nehru Yuva Kendra participated. Participants developed 24 plans to integrate AIDS into their on-going activities. A number of such regional workshops are planned to be held in various parts of the country to sensitize greater numbers of youth organizations on HIV/AIDS. Ten participants from the national workshop will also participate in a regional workshop to be held in Malaysia by the Commonwealth Youth Programme.

Plans are now also underway to tap large youth networks such as the Bharat scouts and guides, Nehru Yuva Kendra, National Cadet Corps (NCC), Youth Hostel Association of India, YMCA and YWCA during 1993/94.

**Industry**

- Meetings and seminars have taken place with the Confederation of Indian Industries and the West Bengal Chamber of Commerce.
- The Indian Tobacco Company is discussing a possible partnership with NACO and the West Bengal State AIDS Cell to provide assistance in management for intervention projects in the red light areas of Calcutta.

A strategic plan is being developed by the West Bengal Chamber of Commerce to reach all member industries. The CII has prepared a proposal for initiating AIDS activities in the workplace and many other industries have expressed an interest in initiating similar activities.

In partnership with ILO and WHO, a pilot programme is being planned to develop approaches and materials for the industrial sector.

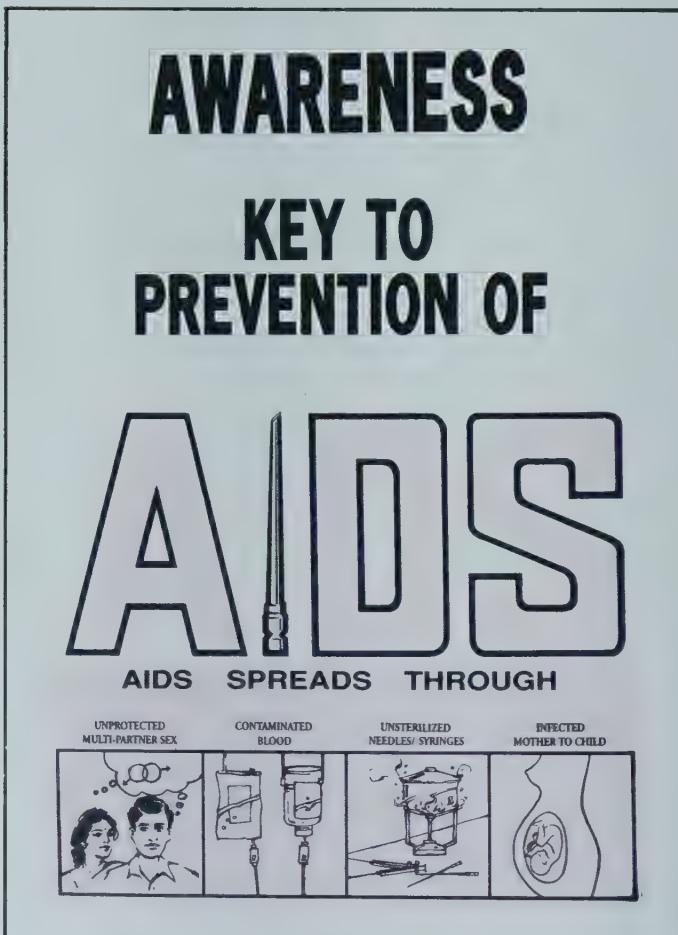
## Mass Media

At the central level, the basic information on AIDS, including policy decisions on how to deal with the sensitive issues it raises, needs to be disseminated. This can be accomplished through a national mass awareness campaign. This campaign would provide an umbrella under which states and organizations can take their cue for the correct messages and approaches. A campaign of this sort would be aimed at the general public using TV, radio, press, and other appropriate channels of communication. Given the breadth and scope of India, all messages and materials will have to be tailored to regional and state conditions. In addition, activities to utilize all forms of mass media have been undertaken or are being planned.

## Activities and Plans

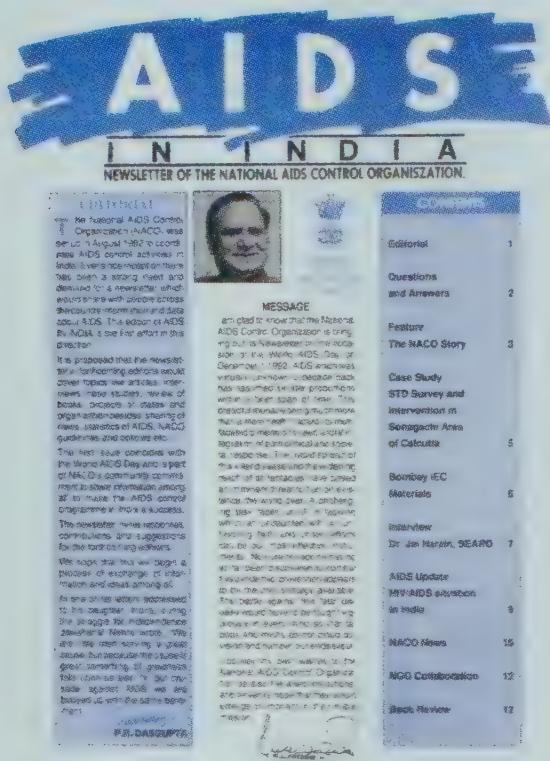
- NACO's first efforts at AIDS awareness through the mass media were the release of two advertisements through the press on November 8th and on December 1st, World AIDS Day. The messages promoted condom use for protection against AIDS and were translated into all major languages. Lintas, Bombay had prepared these ads for the Directorate of Health Services of the Government of Maharashtra.
- To coincide with the Second International Conference on AIDS in Asia and the Pacific held between 8 and 12 November, 1992, a two page feature on AIDS was brought out on 8th November through 6 editions of the Times of India. NACO and WHO scripted a major part of the edition.
- An advertising agency has been short-listed to develop and implement a national AIDS awareness campaign. This was the culmination of a lengthy process where 21 firms were narrowed down to a "short list" of 7. These short-listed firms then made oral presentations before a selection committee. The selected firm will work in close collaboration with NACO to ensure appropriate and technically correct messages.
- Meanwhile an Interim campaign has been devised in collaboration with the Directorate of Audio-Visual Publicity (DAVP) using existing materials. This campaign evolved from materials produced by students in the Universities Talk AIDS campaign and includes posters and a leaflet. These designs have been used on hoardings, bus panels and kiosks. DAVP has also produced radio spots. In addition, NACO will release TV spots on Doordarshan that have been produced by Chitrabani, Calcutta and Lintas, Bombay.

Additional posters developed under UTA and used by NACO in the interim AIDS awareness campaign



A newsletter from NACO has been developed and is being published on a quarterly basis. Each subsequent issue will focus on a theme to highlight the major concerns and activities in AIDS control in India. The April 1993 issue will focus on the social-ethical-legal issues underlying HIV/AIDS.

**NACO's first edition of a newsletter, 'AIDS in India', produced on 1 December 1992, World AIDS Day**



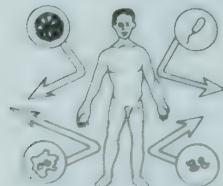
The activities to date generated queries from men and women of all backgrounds and ethnic groupings from all over India. These queries were analyzed for identifying features and categorized state-wise for information needs. As the letters mostly sought general information on HIV/AIDS, an inland letter with simple visuals to answer the basic questions was designed. To date, over 35000 queries have been answered.

**A flyer produced by NACO to answer reader's queries on AIDS-related issues**

*Dear Friend,*

*We were glad to receive your letter showing your interest in the subject of HIV infection and AIDS. We hope the following information will suffice your desire to know more on the subject.*

**THE IMMUNE SYSTEM... and how it works**



*The human body has certain mechanisms to protect itself from infections and disease. This capacity of the body to keep away disease is called resistance. Providing resistance is the job of the immune system.*

*Specialized organs in the body produce substances called immune proteins or antibodies. When the body is threatened by an infection, these antibodies attach themselves to the bacteria, virus or fungus and destroy them through a complicated biochemical process or immunochemical reaction.*

*This immune response system is a natural, protective mechanism in human beings.*

**WHAT IS HIV?**

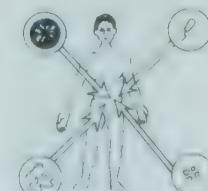


*As mentioned above, HIV is the name of the virus which causes AIDS. HIV stands for:*

*H uman  
I mmunodeficiency  
V irus*

*It is a virus that affects the human immune system.*

**HOW DOES IT WORK ?**



*HIV progressively attacks the self-protective immune system of the body by destroy-*

Plans are in progress to develop standardized prototype materials for the commercial sex work industry, slum dwellers, injecting drug users and women's groups using NGOs and communications professionals. Plans for the development of prototype packages for other target groups are being implemented.

Press seminars to orient the media on AIDS issues are planned to begin in Delhi with guidelines formulated for use in other cities and towns.

NACO is collaborating with the Theater Action Group to develop an interactive theater education program in schools aimed at the development of a video targeted at youth.

### **Targeted Interventions**

A number of high risk behavior practices which are associated with higher rates of HIV infection will need targeted, integrated approaches. This includes the development of special IEC approaches and materials, especially those for a non-literate audience, and the provision of support services such as condoms and STD services. Some identified target populations are: injecting drug users, migrant workers, industrial workers, women, military personnel, the commercial sex industry, street children, truck drivers and slum dwellers.

### **Activities and Plans**

- A targeted intervention with sex workers in Bombay is underway in collaboration with WHO and with funds from SIDA (Sweden). The Bombay Municipal Corporation is implementing this project in conjunction with local NGOs and the Xavier Institute of Communications. The project targets 10,000 sex workers and their clients in addition to the surrounding infrastructure of pimps, madams, police and transportation workers. IEC is being effectively combined with condom promotion and the provision of STD services through a newly opened general clinic in the heart of the red light area. WHO and Swedish SIDA have provided special funds for this project.

**The AIDS virus: This graphic was evolved in close interaction with commercial sex workers in Bombay under a collaborative effort of the Municipal Corporation of Greater Bombay, Xavier Institute of Communication and WHO**



**A leaflet produced under the Municipal Corporation of Greater Bombay, Xavier Institute of Communications and WHO collaboration**

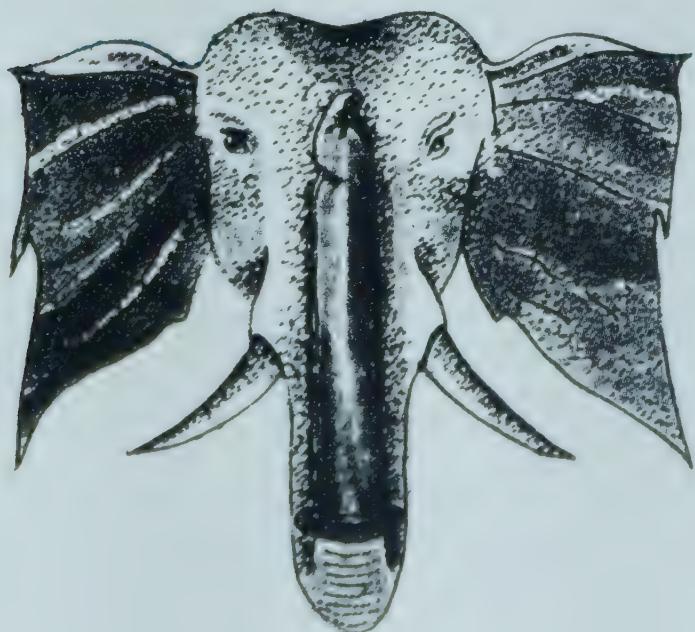


In Calcutta, the All India Institute of Hygiene and Public Health is receiving technical and financial support from WHO with additional funds from NORAD and technical assistance from NACO in an intervention with 6000 sex workers, their clients, pimps and the local community of Sonagachi. Local NGOs along with Chitrabani, a development communications organization, are active collaborators. A community-based programme, it has involved local youth clubs who have donated space for a general clinic. Peer educators among the sex workers can be identified by their green overcoats as they spread important messages about AIDS. Again the integrated approach of IEC, condom programming and the provision of services is a major aspect of the activity.

The Community Action Network, a new NGO, is tailoring this integrated approach with the more hidden sex industry in Madras. After a careful assessment of the sex work industry in Madras with assistance from WHO, materials and approaches have been designed. The intervention was initiated with a cinema event which attracted over 350 sex workers along with madams/aunties and pimps.

**A graphic printed on a condom instruction leaflet produced by the Community Action Network, Madras-a WHO sponsored project**

**பலமான பாதுகாப்பு**



- To support all intervention projects, NACO is contracting out the development of packets of materials for specific groups. The packets would include a mix of media and a manual on how to use the materials.
- NACO is working with NGOs and state governments in the Northeast to finalize program designs and initiate activities immediately with injecting drug users. A special NACO programme officer has been hired for this purpose.

Plans are now underway to develop modules on how to replicate these tested approaches in other cities.

### **Invovlement of NGOs**

As is clear from the above, NGOs will play a major role in AIDS prevention and control in India. They have access to difficult-to-reach populations and many groups practicing risky behavior. In many cases, NGOs will provide the essential link to enable community based care to be effective and will contribute through their networks to important counzelling activities.

### **Activities and Plans**

- An initial meeting took place in November 1992 sponsored by WHO at the National Institute of Health and Family Welfare. The current experiences of participating NGOs were shared and the future involvement of NGOs with potential to participate in the Programme was discussed.
- A Task Force was formed to develop a set of guidelines for the involvement of NGOs in AIDS activities. This involved active interaction with state governments and representative NGOs.
- In March 1993, the NGO guidelines were finalized and submitted for approval. The guidelines include a system for collaboration with NGOs, facilitating their active involvement and ensuring appropriate support structures. Two mechanisms for involving NGOs have been developed: (1) a nodal agency, an institute which would provide training and support as required by NGOs in the State and, (2) contracting with a voluntary action NGO to help monitor and implement NGO programming. NGO advisors will be hired to coordinate activities in the 11 largest States.
- A consultant for the NGOs programme area has traveled to many States to assess the situation regarding NGOs and, where appropriate, to assist the State AIDS Programme officers in the process of identifying a nodal agency or an appropriate NGO for contractual arrangements.
- Guidelines for the development of project proposals and programme design, programme planning, budgeting and accounting for participating NGOs are in progress.

Training modules for communication skills and materials development; community based care and intervention design and implementation are also planned. In addition, representatives from NGOs in the Northeast attended a WHO regional workshop on the continuum of care in Bangkok held in April 1993.

## **Training**

All categories of government workers need to be trained on the facts of AIDS, on coming to terms with these facts and on how to educate and motivate others. For health care workers this will entail facts on how to protect themselves and on how to provide compassionate treatment to those afflicted with HIV and AIDS.

## **Activities Plans**

- Training modules are being produced for IEC and AIDS, and adaptation of IEC materials.
- A youth training module is in its final draft stages.
- Work is in progress with the relevant nursing associations to develop a task specific module for nurses.
- A WHO/NACO assessment team reviewed all existing materials and designed an action plan to coordinate all training materials development and ensure consistency in methodology and content across sectors (see section 3.11 - Training).

Plans are also in progress for extensive training in IEC planning at the state level.

## **Research**

More needs to be known about the attitudes and perceptions of Indians towards sexuality, condom use, and a basic knowledge of STDs and AIDS. More also needs to be known of where these behavior practices are found. This will assist both policy makers and planners in program development.

## **Activities and Plans**

- Currently a study is being undertaken with support from NACO and WHO to assess the prevalence of HIV risk behavior in 65 major Indian cities. This is being done in collaboration with nodal Social Science Institutions whose local knowledge and expertise can set the foundations for future intervention development. Likely groups practicing high risk behavior to be examined include: commercial sex workers, men who have sex with men, injecting drug users, hijaras, travelling males and slum populations. The study should be completed by October 1993.
- In Madras, WHO has provided technical assistance in conducting a ground breaking assessment of men who have sex with men. An intervention to reach this underground network is being developed.

Based on the high risk survey, a proposal for a more in-depth study of the risk factors and patterns in the identified cities will be prepared. More detailed studies regarding sexual behaviour, possibilities for community care, and women and AIDS may also be undertaken in 1993-94.

As a baseline for the awareness campaign, a market research study is being commissioned to provide some basic indicators to test the impact of the messages being developed. This will be repeated after one year of programme activities.

### 3.5 HIV/AIDS SURVEILLANCE

To meet the challenge of the HIV epidemic in the country, there is a need to design, implement, monitor and improve general public health programming for its prevention and control. A needs-based surveillance system which provides essential information on the dynamics of the epidemic is an absolute necessity to formulate and implement an AIDS Control Programme in an effective manner. The surveillance within the framework of the AIDS Control Programme includes 2 components, namely: (1) surveillance of HIV infection, and (2) surveillance of AIDS cases.

#### 3.5.1 HIV surveillance

In 1985, the Indian Council of Medical Research (ICMR) started screening blood from some high risk behaviour groups to determine if HIV was present in India. Two centres, the National Institute of Virology (NIV) in Pune and the Christian Medical College (CMC), Vellore were entrusted with this activity. Soon after in 1986, CMC, Vellore detected an HIV seropositive sample taken from a commercial sex worker in Madras. Following the confirmation of the fact that HIV was indeed present in India, surveillance activities were extended in a phased manner keeping in view the changing objectives and priorities of the AIDS Control Programme that was launched in 1987.

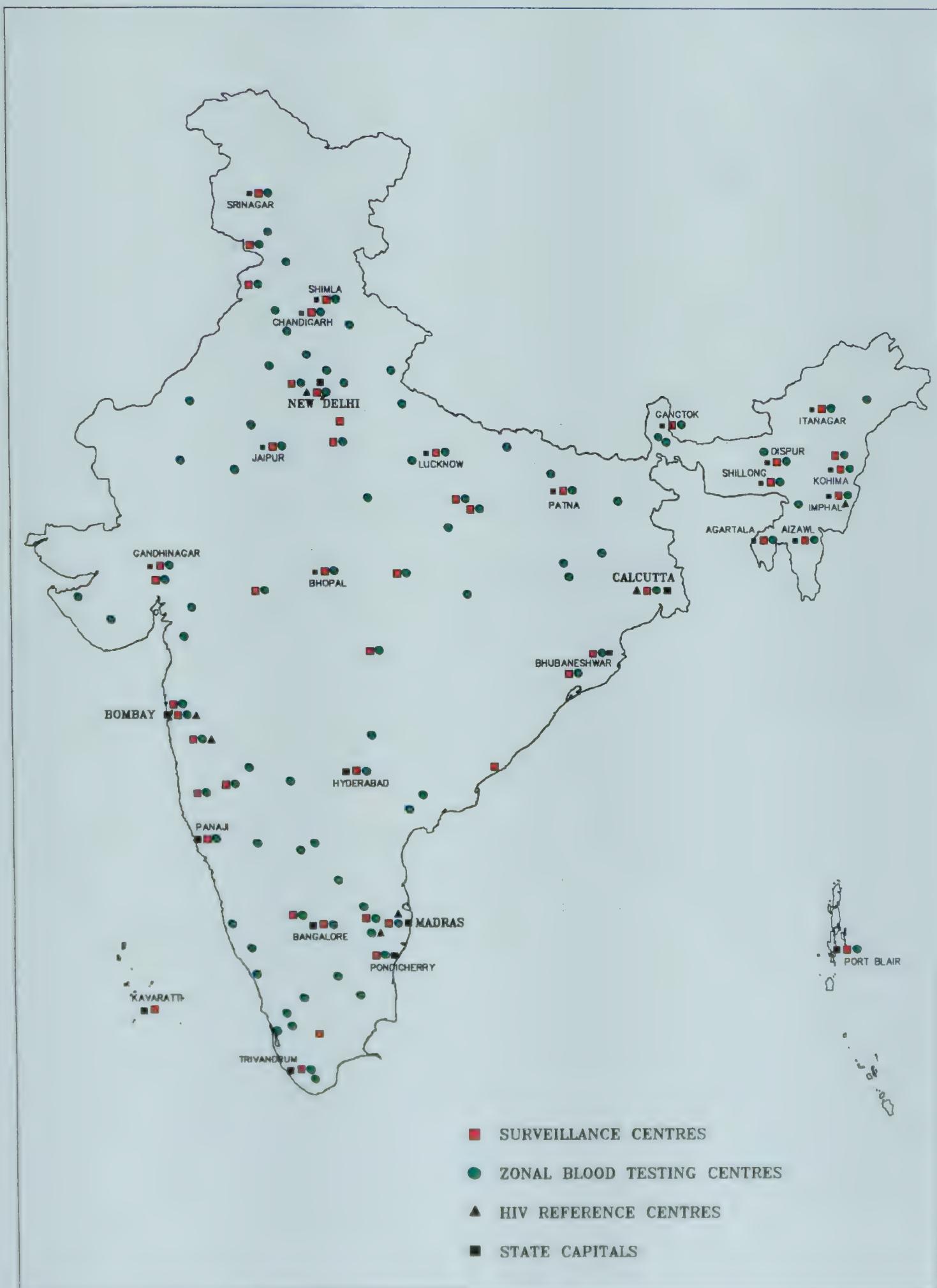
HIV surveillance entered its second phase in May 1986 when its objective was re-defined as identifying the geographical spread of HIV infection and determining the major modes of HIV transmission. HIV testing facilities were made available in many parts of the country and HIV screening was undertaken in a wider geographical area. The results of this screening in phase two indicated that HIV infections had reached almost all parts of the country and that heterosexual transmission was the major mode of HIV transmission in India.

Screening was further intensified in phase three (November 1987) and special groups such as blood donors were targeted to identify trends in HIV seropositivity. This resulted in mandating the HIV screening of blood and blood products before transfusion. In October 1990, overall responsibility of surveillance was taken over by the DGHS from ICMR.

The testing methodology now being followed depends upon the objective of testing. For transfusion safety, the objective is to ensure transfusion of HIV-free blood for which every unit of blood is screened with an initial test and if found HIV positive, the unit of blood is discarded and no further testing is needed. For surveillance activities to date, if the initial test is found positive, the sample is sent to a reference laboratory with Western Blot facilities, where a second screening test is conducted. If again found positive, Western Blot testing is done before labelling the sample HIV positive. This testing methodology has recently been revised in the protocol for HIV Sentinel Surveillance developed by the state. Serial testing with two ELISA (or Rapid, Simple Tests) has been recommended without reference to the use of Western Blot.

The existing HIV surveillance mechanism is based entirely on 62 HIV testing laboratories, designated as surveillance centres, located all over the country (figure 3.5.1 and Annex 3.2.1). The data that is being received from these centres are now considered inadequate for the changing priorities and uses to which this data is being put. The data is often cumulative and pooled and is not very responsive to rapidly changing trends in infection rates.

**Figure 3.5.1**  
**Location of HIV testing facilities in India**



With a view to revamping and strengthening HIV surveillance activities in the country, it was decided to adopt a sentinel surveillance methodology wherein a few selected sentinel sites and populations would be screened for HIV prevalence and trends over a period of time. Accordingly a training module on sentinel HIV surveillance was prepared in order to train the State Epidemiologists and Programme Officers. The surveillance activities are being decentralized to a great extent, so that surveillance data result in appropriate action at the State and district levels.

In order to decentralize the surveillance activities, in November 1992, NACO advised all States to identify and appoint a State AIDS Epidemiologist. Nineteen States did so by February 1993. In the other States the State Programme Officer is made responsible for HIV surveillance. In February-March 1993 NACO, in collaboration with the ICMR and WHO, conducted a training workshop on HIV sentinel surveillance for the State Epidemiologists and State Programme Officers. Representatives from each State have produced a revised sentinel surveillance protocol for their State, based on the training module. The sentinel surveillance protocol is proposed to be implemented in 1993-94.

### **3.5.2 AIDS Case Management and Surveillance**

The 310 AIDS cases reported so far to the Ministry of Health and Family Welfare are considered to represent a small fraction of the total number of AIDS cases which have actually occurred in the country. It is also understood that while HIV infection may still be concentrated in major urban centres, the AIDS cases are likely to be more evenly spread geographically, occurring both in urban and rural settlements. Diagnosis of AIDS and treatment of opportunistic infections are new areas for the physicians in this country as the epidemic arrived relatively recently in India. For these reasons the Strategic Plan for AIDS Prevention and Control envisages the development of an AIDS case diagnosis, referral and reporting system.

According to the NACO Guidelines for AIDS case surveillance all medical institutions will participate in identification of suspect AIDS cases, while only so-called "referral institutions" (hospitals) are entitled to finally diagnose a case and report it to the public health authorities (see table 3.5.1). The network of referral institutions in 1990-91 was limited to 13 medical colleges (listed in the 1991 Country Scenario). In 1993, through expanded training, the network of referral institutions would include all central district hospitals and major general hospitals, with 200 or more beds. After the medical staff of all peripheral institutions have been trained, this referral system will be dismantled and the reporting will be integrated with the general morbidity reporting system operating by the national health services.

For implementing this strategy two training aids have been prepared. The training module on AIDS case management, based on a WHO/GPA/HQ draft was adopted by a NACO/WHO team, and it has been pretested by some 100 medical colleges faculty members in January-March 1993. An updated version will be used for the nation-wide training of physicians responsible for AIDS case management (PRAM) to be conducted in 1993. The Guidelines for AIDS case surveillance developed by NACO outline the referral system, the reporting channels and provide reporting formats.

**Table 3.5.1**  
**REFERRAL SYSTEM FOR AIDS CASES**

Personnel	Institution	Activity
All Medical workers	All health institutions	Identifying suspect AIDS cases on the basis of the WHO case definition. Refer to the nearest hospital.
Physician	Non-referral institution	Investigate the patient in order to negate or support provisional diagnosis. Refer to the referral hospital if suspect diagnosis could not be negated.
Physician responsible for AIDS case Management (PRAM)	Referral hospital	Investigate the patient and diagnosis AIDS on the basis of WHO case definition and HIV test results. Refer confirmed cases to the original hospital. Report confirmed cases to the State AIDS Programme Officer.
PRAM	Referral hospital with advanced diagnostic facilities	Investigate and diagnose AIDS on the basis of the CDC/WHO revised case definition. Refer confirmed patients to the original hospital. Report confirmed cases to the State AIDS Programme Officer.

In December 1992, NACO contracted the Christian Medical Association of India (CMAI) to organize and carry out a nation-wide training of physicians during 1993. CMAI is supported in this undertaking by NACO, WHO, State AIDS Cells and district/municipal health administrations. According to the plan some 25-30 trainers will be oriented theoretically in the country and practically in several African countries which have experience far more advanced AIDS situations. Following this training of trainers exercise the groups of trainers will visit all States and conduct workshops organized by the State Programme Officers. AIDS case diagnosis, management, and counselling are the major training topics, and the agenda would also include brief reviews on epidemiology laboratory diagnosis, prevention, including blood safety and nosocomial infection. It is hoped that through this training these physicians will become agents of change for all HIV/AIDS related issues, especially those concerning the care and treatment of persons suffering from AIDS.

The AIDS case management, referral and reporting system would supplement the HIV surveillance data in monitoring the epidemic and would allow the advance planning of hospital and house/community care for AIDS patients.

### 3.6 OPERATIONAL RESEARCH

In the Strategic Plan for the Prevention and Control of AIDS, several subjects were listed as research priorities in social, behavioral and epidemiological areas (Table 3.6.1). The first meeting of the NACO Research sub-committee was held in February 1993 under the chairmanship of the Director General of ICMR. It was decided that the research activities should be of short duration (no more than one year) and operational in character, so that on completion of the project the results could be utilized for better implementation of the AIDS control programme.

**Table 3.6.1**  
**Major areas for operational research of NACP India**

<b>I. SOCIAL AND BEHAVIOURAL STUDIES</b>
1. Opinion survey on the prevalence/spread of risk behaviour groups in major cities of India
2. HIV risk practices
3. Assessment of the impact of the intervention project
4. To identify the approaches in providing home-based care for AIDS patients
5. Evaluation of the efficiency of multilayer and peer education of MPS females in behavioural change
<b>II. EPIDEMIOLOGICAL STUDIES</b>
1. Evaluation of the feasibility and cost efficiency of HIV testing techniques in various medical settings
2. Role of other STDs in HIV transmission
3. Evaluation of selected intervention strategies for prevention of HIV transmission among IV drug users
4. Evaluation of the condom efficiency in prevention of HIV/STD transmission
5. To determine sensitivity and specificity of the WHO/ DC AIDS case definition in Indian population
6. Natural history of AIDS in Indian population
7. Treatment of HIV/ARC/AIDS by traditional/homeopathic medicines
8. Efficacy and acceptability of female condoms

#### 3.6.1 Pre-Project Research Activities

Some studies have already been initiated in 1991 when the Ministry of Health and Family Welfare assisted by WHO have designed a series of so called pre-project activities. In the expectation of the multi-million dollar loan from the World Bank in support to the programme, the Ministry decided to test the effectiveness of various surveillance and prevention techniques in limited areas for eventual implementation nation-wide. Out of eight

projects listed in 1991, six were initiated, two completed and four are in progress (figure 3.6.1).

**Figure 3.6.1**  
**Major areas of operational research of NACP India**



## **The National Survey on the prevalence of risk behaviors in the major cities**

The larger cities are perceived to be at a greater risk of initial spread of HIV as they not only have greater numbers of people in close proximity, but are also characterized by greater population mobility.

This study is an attempt to map the location and magnitude of a range of high risk behaviour in cities with populations of 5 lakhs and more, as well as in all the state capitals. It does not aim to be in depth, analytical or explanatory. Its primary purpose is fact-finding for advocacy and planning of interventions.

The first protocol for this study was developed and pretested by a group of private advertising agencies at the beginning of 1992. The pretest was carried out in the city of Agra and the results showed that the protocol should be redesigned since the study revealed some Knowledge, Attitude, Behaviour and Practices (KABP) features in limited casually selected population groups but it had not met the major objectives originally designed.

In November 1992, NACO appointed a national coordinator for the survey, who designed a new protocol in consultation with WHO. According to this protocol the study will be conducted by training institutions, such as institutes of social work, departments of social sciences and home sciences. The training and monitoring will be conducted by ten regional coordinators. The field studies are expected to be completed in mid 1993, and the results will be available in late 1993.

The Project is funded jointly by NACO and WHO.

## **The Multi-level education and STD control in females commercial sex workers in Kamathipura area of Bombay**

The initial assessment of the situation conducted in January-March 1992 by a WHO consultant in Kamathipura and Khetwadi, the major brothel areas of Bombay, resulted in a recommendation to develop a comprehensive HIV/STD prevention project in these areas. The previous projects carried out in the area had their objectives limited basically to a single group - commercial sex workers - and included their education and condom distribution. In May-June, the Bombay Municipal Corporation (BMC) set up an operational team which, together with the GPA country team developed a project proposal. The BMC project is aimed at working with all sex business associated groups and clients, who determine the practices of the female sex workers and decide on the condom use.

It is expected that intensive information through mini media, printed materials and peer education as well as organized class orientations would create an atmosphere conducive for condom use.

The second component of the project is control of sexually transmitted diseases among commercial sex workers and eventually among clients. An STD clinic adjacent to Kamathipura, is being upgraded and a second STD clinic is being established in the middle of Kamathipura, that would allow easy access to the services for the sex workers, whose mobility is restricted by the brothel holders.

Initially the project was supported from WHO funds allocated for the state of Maharashtra. In October 1992, Swedish SIDA contributed (through WHO) an additional amount of approximately US \$ 500,000. Initially WHO and eventually SIDA will also meet

the cost of international advisors involved in the project. BMC has also allocated funds for the provision of a free drug supply for the treatment of STDs.

### **Peer education and condom promotion in homosexual population**

The site for this project (initially launched in Bombay) was moved to Madras. An initial assessment of homosexual groups (men who have sex with men) by a NGO assisted WHO consultant started in Madras in January 1993.

### **The STD prevalence surveys in three areas: urban, semi-urban and rural**

#### **Tamil Nadu survey**

In view of the scarcity of data on the prevalence and incidence of STD in the country, a number of STD base-line surveys were organized. A survey in Madras and a rural area of Tamil Nadu was recently completed. A total of 2100 participants (1000 males and 1100 females) were randomly selected and screened for several sexually transmitted disease. Industrial workers, transport workers, remand prisoners, antenatal clinic attenders, and male and female attenders of rural PHC clinics participated in the survey.

The survey revealed relatively high STD prevalence ranging from one to 10 per cent in various groups. Of interest is the observation that the rates in the rural areas were found to be higher than in the urban area. The survey was conducted by the Institute of Venereology of Madras, the Ministry of Health of Tamil Nadu with technical support by a WHO STD adviser and WHO funds. This particular survey protocol may be applied for similar surveys in rural and urban areas.

#### **Calcutta STD/HIV survey**

In May-June 1992 an STD/HIV and sexual behaviour base-line survey was conducted in a red-light area (Sonagachi) in Calcutta. This was the first survey community based random sample STD in India. The survey coordinated by the Department of Public Health of the All India Institute of Hygiene and Public Health, Calcutta, was a joint undertaking by various national and state public institutions and a NGO, assisted by WHO consultants in the survey design, monitoring and reporting. The overall rate of STD in this group was over 50%, although the HIV prevalence rate was still low, offering a real window of opportunity for prevention of HIV epidemic in this city.

During the survey, a protocol for a study on the prevalence of STD, HIV and sexual behaviour in the brothel settings has been pretested and it is available with NACO for the parties which are interested in similar studies in other urban centers.

The survey was followed by the development and implementation of an intervention project. The three components of the intervention include clinical services provision for the diagnosis and treatment of STDs, IEC for behavioral change and promotion of condoms. The feasibility of expanding the intervention to other red light areas in Calcutta and Howrah is being studied.

Initially the project was technically and financially supported by WHO. In October, NORAD pledged and later provided funds for the Sonagachi area intervention for a period of one year. Further support for a longer period for the intervention in this and other red light areas of Calcutta, Howrah and other cities of West Bengal is expected from ODA of

the United Kingdom. An ODA team made a situational assessment in December 1992 and formalities for funding are being cleared.

### **Development of strategies on education on safe sex behaviour for call girls in Madras city**

Unlike Calcutta, Delhi, and Bombay there is no well demarcated brothel settings in many other cities of India. In order to identify the approaches for intervention among CSW's outside brothels, a project was initiated in Madras in August 1992. According to the estimates, out of a total sex worker population of 3,000 only some 400 are based in 70 to 100 small brothels distributed over the whole city. This project, aimed at the studying the network involved in the sex business, was carried out by a NGO, funded by WHO and assisted technically by WHO consultants. By November 1992, the major networks of commercial sex had been studied, described, and their technical locations mapped.

This assessment was followed by a study on the feasibility of reaching the sex workers through the brokers for delivery of educational messages and condoms. Expansion of this project is planned for the major cities in four Southern States of the country. Funding source for this intervention is to be identified.

### **Developing strategies on prevention of HIV transmission in North-Eastern States of India**

In June 1991, WHO and the Ministry of Health and Family Welfare assisted the Government of Manipur in the formulation of a proposal to support a regional workshop for the North-Eastern States which aimed at involving NGOs in the prevention of HIV transmission among injecting drug users. With financial assistance from UNDCP, ODA and WHO, UNDP organized the North-Eastern States Sub-Regional Conference on HIV/AIDS at Imphal, in January 1992. Over 60 representatives from the seven states, government and NGO's attended the project. Ten proposals had been developed.

Donors reaction to these proposals was enthusiastic. SIDA invited the project participants to a meeting in which they stated their intent to fund a substantial number of appropriate proposals. AIDAB also expressed their desire to fund a proposal in their next funding cycle.

Currently a joint GOI/WHO team has helped five of these NGOs finalize their project proposals in the light of the latest NACO guidelines for NGOs, as well as proposals for developing a coordination support mechanism for NGOs in this region.

In summary, the operational research conducted within the framework of pre-project activities has resulted in the development of surveillance and intervention protocols for various groups of persons practicing risk behaviour. After the behavioral survey is completed, the interested parties will have readily available and pretested guidelines to launch intervention activities on a larger scale.

### **Study on a prevalence of HIV-2 in Bombay and Pune**

In 1991, a local research group in Bombay supported by colleagues from FRG have revealed that HIV-2 is present among commercial sex workers of Bombay. Following this disclosure Ministry of Health and Family Welfare requested WHO support in studying HIV-2 prevalence. Research institutions in Pune and Bombay assisted by WHO developed a study protocol. The first cycle of the survey was completed in 1992. Results of this survey will help to formulate the policy in relation to blood screening for HIV-1 and HIV-2.

## 3.7 SEXUALLY TRANSMITTED DISEASES

### 3.7.1 Introduction

The control and prevention of sexually transmitted diseases (STD) is now recognized as one of the major strategies to control the spread of HIV infection and AIDS.

In the first place, both STD and HIV infection/AIDS are associated with the same risk behaviour, that is sexual intercourse with multiple partners. Therefore, primary prevention measures for the prevention of STD are the same as for the prevention of sexual transmission of HIV infection. This can be achieved through IEC to promote safer sexual behaviour, including condom use, and the provision of condoms.

Secondly, the presence of an STD facilitates both the acquisition and transmission of HIV infection. Early diagnosis and treatment of STD has therefore the potential to reduce the transmission of HIV infection. Patients with STD form an important target group for health education and individual counselling, and by offering good quality clinical services it is possible to have access to this otherwise difficult to reach and elusive group.

#### Relationship between AIDS and other STD

- \* The predominant mode of transmission of both AIDS and other STD is sexual, although other routes of transmission for both include blood, blood products, donated organs or tissue and through an infected woman to her foetus or newborn infant.
- \* Many of the measures for preventing sexual transmission of HIV and STD are the same, as are the target audiences for these interventions.
- \* STD clinical services are an important access point for persons at high risk for both AIDS and STD, not only for diagnosis and treatment but also for education on prevention.
- \* There is a strong association between the occurrence of HIV infection and the presence of other STD. Increasing evidence suggests that many STD, particularly genital ulcer disease, very significantly facilitate the acquisition and transmission of HIV.
- \* Increasing evidence suggests there is increased severity of manifestations and infectivity of STD and reduced response to conventional therapeutic regimens in HIV infected persons.
- \* Trends in STD incidence and prevalence can be useful indicators of changes in sexual behaviour, are easier to monitor than trends in HIV seroprevalence and are therefore valuable for determining the impact of HIV/AIDS control programmes.

#### History

A centrally sponsored national STD programme has been in operation in India since 1946. This programme is based on a limited number of specialized STD facilities offering clinical services for diagnosis and treatment of STD, and relies on the health care seeking behaviour of individuals with an STD. The facilities currently providing STD services are: 5 Regional STD Reference Centres (Delhi, Madras, Hyderabad, Nagpur, Calcutta); the skin-leprosy-STD clinics in Medical Colleges and in some District or Taluka Hospitals; and Municipal STD Clinics in some cities.

It is estimated that only a very small percentage of all people with an STD attend these public STD facilities. The majority seek clinical care either from the formal or the informal private sector, or resort to self-medication. Many women especially are thought to remain without treatment. This is partly due to the scarcity of non-stigmatizing, acceptable clinical services for women, and partly due to the frequently asymptomatic or poorly symptomatic nature of STD in women.

- \* STD are very common in urban and many rural areas in India
- \* Most STD are curable, if early and effective medical care is obtained
- \* Many STD patients rely on informal or traditional sources of health care for STD, or resort to self-medication
- \* STD can be prevented through behavioural changes towards after sex: this involves a reduction in the number of sexual partners, and the consistent use of condoms

It is the policy of the Ministry of Health and Family Welfare to integrate comprehensive STD control efforts in the existing health care system, both public and private. Special emphasis is being placed on the integration of comprehensive STD case management at the first level of the health care system so as to provide as much as possible non-stigmatizing services with a high accessibility and acceptability to the consumer.

Principles of privacy and confidentiality, essential to the success of any attempt to deal with STD will strictly be adhered to. Cooperation from and collaboration with the private sector and NGOs will be promoted and actively sought.

### **Objectives**

The objectives of the STD control component of the National AIDS Control and Prevention Programme are: i) to reduce the transmission of STD, and hence of HIV infection by reducing the risk factor effect for HIV transmission associated with the major STD; ii) to prevent the development of short and long term morbidity and mortality, due to STD.

### **Strategies**

The following main strategies, as outlined in the Strategic Plan for the Prevention and Control of AIDS in India, will be developed and employed:

1. Prevention of the transmission of STD/HIV infection, through IEC, promoting safer sexual behaviour, including the consistent use of condoms.
2. Adequate and comprehensive management of patients with an STD, which includes diagnosis, treatment, individual counselling, partner notification and screening for other diseases.

3. Increasing access to adequate health care for STD, by strengthening existing facilities and health care structures, and the development of new facilities where necessary.
4. Early diagnosis and treatment of mostly asymptomatic infections through case-finding and screening.

The implementation of these strategies will be supported by:

5. Training of health care workers, both public and private, in comprehensive STD case management.
6. Development of appropriate laboratory services for the diagnosis of STD.
7. Microbiological and socio-behavioural research, and operational research.
8. Surveillance, to follow the epidemiological situation and to monitor and evaluate the implementation of STD control programmes and their effectiveness.

### **NACO activities and plans**

Ongoing activities under the national STD control programme are the training of medical officers and paramedical personnel in the five Regional STD Centres, as well as the maintenance of STD reference laboratories in these centres.

### **STD baseline surveys**

- STD baseline surveys were conducted among selected population groups in Jaipur, Madras and a rural area in Tamil Nadu, while a baseline prevalence survey on STD/HIV and on knowledge of STD/HIV infection was conducted among commercial sex workers in a red light area in Calcutta.
- The survey in Madras and Tamil Nadu (April-June 1992) was conducted among the following groups: remand prisoners (N=250); industrial workers (N=250); transport workers (N=250); antenatal clinic attenders (N=750); and rural males (N=300) and females (N=300).

Demographic data was collected from the study participants, and the prevalence of selected STD was assessed through a combination of physical examination and laboratory diagnosis.

The prevalence of all STD, and that of positive syphilis serology is summarized in table 3.7.1.

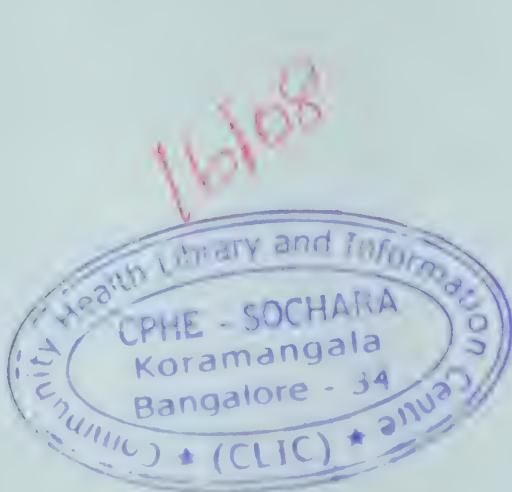


Table 3.7.1

Group	STD Prevalence	Syphilis prevalence
Remand prisoners males (N=200) females (N=50)	9.5% 36.0%	6.0 % 10.0 %
Industrial workers	1.2%	0.8%
Transport workers	5.2%	4.4%
ANC attendants	9.7%	1.7%
Rural males	5.6%	3.6%
Rural females	4.0%	3.3%

The most reliable laboratory indicator for prevalent infection in this survey was found to be a positive syphilis test. The high prevalence of a positive syphilis test in the rural population is striking, and indicates high levels of STD in the rural areas.

The survey in a red light area in Calcutta (April-June 1992) was the first randomly sampled STD/HIV baseline survey among commercial sex workers in India, conducted jointly by the following institutions: All India Institute of Hygiene and Public Health, School of Tropical Medicine, Society for Community Development (NGO), Calcutta Medical College, with the support of the State AIDS Cell, the State Ministry of Health, the Institute for Post-Graduate Education (Chandigarh) and WHO. 450 commercial sex workers were randomly selected from a red light area in Calcutta. Interviews were conducted by social workers, after which a physical examination and laboratory analysis of specimens took place.

A majority (69%) of the sex workers had some knowledge of STD, most commonly about syphilis (67%), but only 31% knew about AIDS. Most sex workers (70%) reported to have suffered an STD in the last year, and during the last month 34% received treatment for some ailment. Just under half (45%) took precautions against pregnancy, but condom use by their clients was reported at only 4%. At the time of the survey 42% of the sex workers complained of a vaginal discharge.

The prevalence of various STD is summarized in table 3.7.2.

**Table 3.7.2**

Condition	%
Candidiasis	23%
Trichomoniasis	11%
Gonorrhoea	11%
VDRL positive	59%
TPHA positive	63%
Genital ulcer	6%
HIV infection (WB confirmed)	1.1%

- The high rates of STD and the still relatively low HIV prevalence indicated an urgent need for intervention development. As an immediate follow-up to the survey an integrated intervention programme was developed and implemented. This approach combines the provision of health care services, with an emphasis on STD diagnosis and treatment, with IEC and the distribution of condoms.
- Expansion of the current intervention to the other red light areas in Calcutta and Howrah is foreseen for 1993.
- A final report on the Jaipur baseline survey is expected in the near future.

#### **Policy and strategy development**

- A technical advisory sub-committee on STD was constituted, and a first meeting held. During the meeting the policy and strategies proposed by NACO were endorsed, and a number of recommendations were made.

#### **Programme management**

- NACO has employed a Programme Officer(STD) to assist the Additional Director (Tech) in all activities relating to STD control.
- State AIDS Programme Officers have been recommended to appoint STD Programme Officers in the state AIDS cell.
- To assist the state AIDS and STD programme officers in the planning of STD control programmes in the individual states two STD Planning Workshops have been held. The first took place in New Delhi (February 1993), and was attended by programme officers from the following states and Union Territories: Delhi, Gujarat, Rajasthan, Himachal Pradesh and Uttar Pradesh. The second workshop in Madras (February 1993) was attended by participants from the following states: Tamil Nadu, Kerala, Karnataka, Andhra Pradesh, Goa and Orissa.

The aim of the workshops was to provide the programme officers with the necessary skills to: i) make a rapid assessment of the STD situation and identify priority groups and areas for interventions, and especially for

provision of STD services; ii) identify potential partners in STD control activities, including the private, corporate and NGO sectors; iii) plan for prioritized, targeted STD interventions; iv) prepare a workplan and budget for these interventions.

As a result of the workshops, detailed draft plans for priority STD programme activities in the individual states are expected by the third quarter of 1993 from a substantial number of states. These plans will initially focus on the 65 cities with a population over 500,000 and the State and Union Territory capitals.

- A third STD planning workshop for the Eastern states will be held in May 1993.
- NACO will continue to support the development, implementation and monitoring of state STD control activities.

#### **Prevention of sexual transmission of STD/HIV infection through IEC**

- IEC activities for the primary prevention of STD and HIV infection are developed and implemented through the IEC component of the National AIDS Programme. Specific materials are being developed for use in health care facilities where STD treatment is provided. An important IEC activity is the promotion of health care seeking behaviour for patients with STD.

#### **STD case management**

- The 372 existing STD clinics in Medical Colleges, and in District and Taluka Hospitals, are being strengthened through the provision of laboratory equipment and training of manpower. These clinics will play a role in training of medical and paramedical personnel, and will act as referral centres for first level health care services in their catchment area.
- The five Regional STD Referral Centres are being upgraded and strengthened to enable these centres to play a role as reference centres for training, research, supervision and monitoring, and as STD referral centres for first level health care services.
- First level health care services will be strengthened to ensure the provision of good quality and effective STD case management at the point of first contact. This might involve upgrading of physical facilities, and will be achieved through training of medical and para-medical personnel, as well as provision of drugs and consumables.
- Orientation and training of private health care providers in STD case management will be conducted, to ensure good quality and effective STD case management and to involve private practitioners in IEC activities.
- Operational and health systems research will be conducted in 1993 to assess the potential for and feasibility of integration of STD clinical services in MCH/FP and antenatal clinics.

- A national workshop will be held in the first half of 1993 to develop national STD treatment guidelines.

### **Increasing access**

- To the extent possible use will be made of existing health facilities for the provision of STD case management. It is not foreseen to expand the number of specialized STD clinics, but rather to offer STD services through their integration into first level health care.
- A study on health care seeking behaviour in relation to STD will be conducted, and this will assist in formulating strategies to render existing facilities more acceptable and accessible to people with STD. This study might also indicate other formal or informal health care providers, with whom collaboration might be sought to improve STD case management.

### **Case-finding and screening**

- In the absence of simple diagnostic tests for STD the feasibility of case-finding and screening are limited. In the course of 1993 a review will be done of the status of maternal and congenital syphilis control in India. As needed a plan will be developed to strengthen and implement universal screening for syphilis, and subsequent treatment, for all antenatal clinic attenders.

### **Training**

- A set of generic STD training modules is currently under development. These modules address the following topics: i) planning of STD control programmes; ii) STD case management; iii) laboratory diagnosis of STD; iv) core group interventions; v) surveillance systems for STD. A module on health education and counselling for STD patients will be developed by the IEC team.

The above modules will form the basis for the development of cadre-based specific training packages, which will address the training needs of specific cadres of health workers, at specific levels of the health care system.

- A national consensus workshop is planned in the second quarter of 1993 to finalize the training modules, prior to their release for use in state and district level training.

### **Laboratory services**

- Laboratory services in the 5 Regional STD Referral Centres, and the STD clinics in Medical Colleges, and District and Taluka Hospitals will be upgraded.

However, it is recognized that management of STD patients will be predominantly on a clinical basis, and that laboratory support will mainly be reserved for: i) diagnosis of difficult cases; ii) management of treatment failures; iii) research and antibiotic susceptibility monitoring.

- A proposal for strengthening the quality assurance system for STD laboratories will be developed in the second half of 1993. This will initially involve upgrading the existing syphilis serology quality control system, and establishing a quality assurance mechanism for the diagnosis of gonorrhoea.

### **Research**

- Operational and health systems research will be conducted, to assess the feasibility of integrating STD clinical services in MCH/FP and antenatal clinics.
- A proposal for the development of an antibiotic susceptibility monitoring network for various STD will be developed.

### **Surveillance**

- A surveillance workshop will be held during the second half of 1993, to develop a national STD surveillance system, and to develop a uniform reporting format.

## 3.8 CONDOM PROGRAMMING

### 3.8.1 Introduction

The dominant mode by which HIV infection is transmitted in India is sexual intercourse. Barring abstinence or limiting one's sexual relations to a monogamous, uninfected partner, the only other method to avoid infection during sexual intercourse is the proper and consistent use of an intact latex rubber condom.

In recognition of the fact that some people have multiple sex partners, and engage in risky sexual behaviours (as evidenced by high STD rates in the country) the Government of India strongly supports the promotion of good quality, low cost condoms for the prevention of STD and HIV infection.

The condom market in India is currently relatively small, catering mostly to contraceptive needs of users, and covers only 5% of the eligible couples. The condom market primarily belongs to the Government owned brand name "Nirodh". Free issues of Nirodh (approx. 700 million annually) and commercial versions (300 million per year, distributed through a social marketing programme) occupy some 84% of the total market (see table 3.8.1).

**Table 3.8.1**  
**Major Commercial Condoms in India**

NAME	PRICE	VOLUME
1. Nirodh - New Lubricated	Rs.0.50/3 (17p/pc)	80 million
2. Nirodh - Deluxe	Rs.1.50/5 (30p/pc)	120 million
3. Nirodh - Super Deluxe	Rs.3.00/4 (75p/pc)	20 million
4. Masti (PSI)	Rs.3.50/4 (88p/pc)	40 million
5. Kohinoor (TTK)	Rs.4.00/3 (Rs.1.33/pc)	70 million

Two other brands (Adam - 1 million; Kamasutra - 5 million) are exclusively marketed for disease prevention.

Two issues to be overcome in the promotion of condoms for disease prevention are: i) the negative quality and image perceptions of Nirodh; and ii) the almost exclusive association of condoms with family planning/spacing.

### 3.8.3 Objectives

The objective of the condom programming component is to ensure easy access to good quality, affordable and acceptable condoms.

### 3.8.4 Strategies

The following main strategies, as outlined in the Strategic Plan for the Prevention and Control of AIDS in India, will be developed and employed.

1. to provide technical assistance to companies to manufacture condoms in conformity with the international specifications laid down by the WHO and improve the quality assurance system;
2. to strengthen the existing social marketing structures in the Department of Family Welfare with a view to fulfilling the needs and requirements of the AIDS Control Programme;
3. to strengthen the management ability of PVO/NGOs that promote and distribute condoms for STD/HIV prevention to more effectively plan, coordinate, monitor and evaluate their activities;
4. to collaborate with the existing IEC programme of the Department of Family Welfare for promoting the use of condoms for achieving the dual purpose of averting a birth as well as protection from AIDS;
5. to support and strengthen the ICMR and Population Research Centres for undertaking research studies on all matters related to the use of condoms and increasing its use, particularly among high risk groups;
6. to strengthen programme management and monitoring systems.

Social marketing of condoms will be an important strategy to increase the acceptability of and access to condoms, while improving the sustainability of condom provision.

### **3.8.5 NACO activities and plans**

#### **Programme management**

- NACO has employed an Operational Officer (Condoms) to assist the Additional Director (Tech) in all activities relating to the condom programming component.
- Production of good quality condoms, quality assurance
- Production of the dry, unlubricated Nirodh condom has been stopped, and as existing stocks are utilized, these condoms will be phased out completely in 1993. This will contribute to a better product image for the Government produced condoms.
- Schedule "R" of the Drugs and Cosmetics Act has been revised to bring the condom specifications within the quality parameters as described by WHO. Notification of the amended schedule will take place in the near future, following which manufacturers will have a limited period to adapt the production process to meet the new standards.
- A proposal to strengthen the quality assurance system for condoms, including the quality control laboratories, will be developed in the second quarter of 1993, with assistance from WHO and the Seattle based organization "Programme for Appropriate Technology in Health". Implementation will follow in the second half of 1993.

### 3.8.6 Social marketing of condoms

- A meeting was held early in 1993 with the companies currently involved in social marketing of 'Nirodh' for the Department of Family Welfare's family planning programme. The objective of the meeting was to raise awareness of the HIV/AIDS situation in India, and the need to vigorously promote condoms for disease prevention, as well as for the prevention of pregnancy.
- During April 1993 a NACO/WHO mission on social marketing of condom took place, which resulted in recommendation for strengthening the condoms social marketing efforts, and to conduct market research.
- The following operational and market research will be conducted in the first half of 1993:
  - \* whether a single product can be marketed for both disease and pregnancy prevention, under a common protection motto, or whether separate products should be marketed;
  - \* whether the negative image of Nirodh can be sufficiently overcome with the release of the new 'Nirodh de luxe' condom, or whether a new brand name should be introduced;
  - \* PVO/NGOs will be stimulated to undertake market research targeted at segments of the market, and specific high risk groups.

The results of the above mentioned studies will assist in formulating strategies for condom promotion and distribution, including social marketing.

- A pilot project to test the feasibility of distributing condoms through vending machines will be conducted in the second half of 1993.
- Promotion of condoms for disease prevention, which is the responsibility of the IEC component of the National AIDS Control Programme will be done in consultation with the existing IEC programme of the Department of Family Welfare.

If indicated, an integrated approach to promoting condoms for both family planning and disease prevention purposes will be developed.

- A feasibility study on the female condom is foreseen for the second half of 1993.

#### Strengthen PVO/NGOs

- Workshops to increase the involvement of PVO/NGOs will be organized in the second half of 1993. The aims of these workshops are: i) to disseminate the results of market research; ii) to motivate PVO/NGOs to play a more important role in social marketing of condoms; iii) to strengthen the management capability of these PVO/NGOs in terms of condom logistics.

Strengthen programme management and monitoring systems

- Workshops on logistics management will be planned at a later stage, and a management information system will be developed.

## 3.9 BLOOD SAFETY PROGRAMME

### 3.9.1 Introduction

In the year 1989, the Ministry of Health & Family Welfare engaged the services of M/s A.F. Ferguson and Company to study the status of the blood bank programme in the country. According to their report, based on secondary sources, a total of 1018 blood banks were operating in the country in the public and private sector collecting 19.5 lakhs of blood units annually. (Table 3.9.1).

**Table 3.9.1  
Blood banks and volume of blood collected, 1989**

Managed by	Number	Blood Units collected (in Lakhs)	Percentage
Central Government	41	1.5	7.7
State Government	567	8.4	43.1
Private Hospitals	151	2.9	14.9
Commercial	203	4.7	24.1
Voluntary Organizations	56	2.0	10.2
	<b>1018</b>	<b>19.5</b>	<b>100.0</b>

Among the major observations made by the Ferguson study were:

- an overall shortage of blood, specially from voluntary donors;
- blood from professional donors was most unsafe;
- testing of donated blood for HIV and Hepatitis B was limited and erratic;
- the blood component production availability and utilization was extremely limited;
- a shortage of health care professionals and specialists in the blood transfusion services.

The requirement of blood, as per WHO recommendation at the rate of 7 units of blood per hospital bed comes to 40 lakhs units per annum for the 5.9 lakhs beds in the country.

It should however be noted that the Ferguson report itself was not based on a comprehensive city by city survey. It was based on some primary and mostly secondary sources. Therefore the position keeps on changing from time to time according to the availability of data from the Drug Controllers of various states.

According to the latest information from the Drug Controller's office, two thirds of the blood banks in the country have been licenced by the relevant authorities (Table 3.9.2).

**Table 3.9.2**  
**The licence status of blood banks**

Managed by	Licenced (%)	Unlicenced (%)	Total (%)
Government	244 (43%)	326 (57%)	570
Private	488 (90%)	52 (10%)	540
<b>Total</b>	<b>732 (66%)</b>	<b>378 (34%)</b>	<b>1110</b>

94% of units collected by commercial blood banks come from professional donors while the Government blood banks try to depend mainly on replacement and voluntary donors.

Based on the National Policy frame work developed by the Central Council of Health in 1982, eight objectives were developed in the Strategic Plan for the Prevention and Control of AIDS in India. The objectives are:

- strengthening the National Blood Transfusion Services;
- ensuring an adequate supply of blood to all blood centres;
- ensuring the safety of blood and blood products;
- developing facilities for the production of components;
- developing and strengthening facilities for plasma fractionation;
- strengthening external quality control of blood and blood products;
- undertaking research on blood transfusion service operations to improve safety, efficacy and supply;
- developing and strengthening effective management, monitoring and evaluation of blood transfusion services.

During the period of this report, implementation of several of the above strategies has been initiated with the use of funds allocated by the Government of India and the World Bank. Major programme components realized to date are noted in the following sections.

### **3.9.2 Legal Framework**

The Government of India's Schedule F XII-B provides the necessary legal framework as per the Drug and Cosmetic Act. The existing rules specify licensing for physical facilities of equipments, staff accommodation, labelling etc. The recently introduced amendment has added the following provisions:

- a) Testing procedures of blood and blood products quality control of reagents; specified qualification and experience requirements for blood bank personnel;
- b) Preservation of specimen samples of each unit of blood in a pilot tube for 72 hrs. after transfusion;
- c) Maintenance of complete and accurate records;
- d) Mandatory testing to ensure the freedom of blood and blood products from HIV antibodies;
- e) Approval of licence by the Central Licence Approving Authority (which means the Drug Controller of India) prior to the granting of a licence;
- f) Whole human blood and components shall conform to standards as prescribed under the Indian Pharmacopoeia.

The major changes made in this notification enable the Central Government to exercise simultaneous jurisdiction in the approval of blood banks licences in order to ensure a better control over the inspection and licensing of blood banks.

### 3.9.3 Programme Management

The Blood Safety Programme is an integral component of the National AIDS Control Organization, coordinated by a Deputy Director (Blood Safety). A majority of the States have assigned Blood Transfusion Officers to coordinate the implementation of this aspect of the programme at the State level. To augment the programme management towards blood safety, assistance is provided by the Government of India for staff salary contingencies, equipment and vehicles. The staff provided under the Blood Safety Component are as follows:

Category	Major States**	Other States
- Joint Director (Blood Safety)	1	-
- Deputy Director (Blood Safety)	-	1
- Technical Assistant	1	1
- Drug Inspectors	2	1

\*\* Major states are Andhra Pradesh, Bihar, Gujarat, Karnataka, Orissa, Maharashtra, Madhya Pradesh, Rajasthan, Tamil Nadu, Uttar Pradesh, and West Bengal.

A Technical Sub-Committee on Blood Safety has been set up at the National level. This sub-Committee shall meet once every six months and provide directions on the technical aspects of the Blood Safety Programme.

### 3.9.4 Establishment of HIV Testing Facilities

During the past three years, 180 HIV Zonal blood testing centres have been established in 112 cities. These zonal blood testing centres have established linkages with other blood banks affiliated to the public, voluntary or private sector. The zonal centres receive samples of blood from the banks attached to them for testing and provide blood

banks with the results of the HIV test. According to the present policy, the blood is discarded after the first HIV test (whether by ELISA, simple or a rapid test) has indicated a positive result.

The Government of India, with support from WHO and USAID has provided various equipment to Zonal blood testing centres such as ELISA Readers, accessories, testing kits and contingency grants towards salary of two technicians, chemicals and disposable. Arrangements have been made for the regular supply of testing kits through the Regional distribution centres. District level blood banks which handle small quantities of blood will be reinforced through the provision of a salary for one technician as well as Rapid HIV test Kits.

Currently private and commercial blood banks may also use free of charge the facilities for HIV testing existing at the zonal centres. However, it is planned that HIV testing for these blood banks will eventually have to be performed by the private blood banks themselves at their own costs. For the district level blood banks, the National AIDS Control Organization is providing HIV Rapid Test Kits and is planning to strengthen the laboratory staff.

### **3.9.5 Modernization of Blood banks**

The National AIDS Control Organization has launched a central scheme of assistance to States to upgrade and provide minimum facilities to all blood banks in the public sector.

This assistance includes blood bank equipment and contingency grants for the purchase of consumables, chemicals and reagents. In the 7th Plan, 138 blood banks have been modernized and 90 more blood banks were taken up for modernization during 1992-93. A further three hundred and eighty remaining blood banks in the public sector will be modernized during the 1994-96 period.

### **3.9.6 Training and Manpower development**

The Government have formulated a short term and long term strategy for training and manpower development under the Blood Safety programme. Under the short term strategy, 10 training institutions in different regions of the country which are imparting short term training courses will be augmented. Training modules are being prepared. The TA/DA for the trainees is also provided by the National AIDS Control Organization. The target is to train 608 medical officers, 608 blood bank technicians, drug inspectors and donor motivators by providing a short term orientation training course.

As a long term strategy, it is proposed to start post graduate degree and diploma course in blood transfusion services so that a separate discipline is developed in blood banking which would pave the way for career prospects in the field.

### **3.9.7 Promoting Rational Use of Blood**

While there is a need to build up blood collection, it is implicit that the available blood and components need to be used more rationally. This aspect is being included in all training programmes for the relevant health professionals to ensure a better understanding of the how, the why and the when of blood and blood-product use in the country.

The National AIDS Control Organization has set the target to establish 30 components separation centres. During 1992-93, work began on the establishment of an initial 6 centres. The remaining centres shall be established during the next two years.

One Plasma Fractionating Centre has already been set up in Bombay. Additional such units would be considered later.

### **3.9.8 Promotion of Voluntary Blood Donation**

The I.E.C. component of the National AIDS Control Organization provides substantial inputs for motivation to voluntary blood donors, involving mass media, government institutions and NGOs.

### **3.9.9 Quality Control**

The Institute of Biologicals will monitor various aspects of quality control of blood and blood product including testing sera for HIV. A sub-committee on quality control has also been set up under NACO.

## 3.10 REDUCTION OF IMPACT

### 3.10.1 Introduction

As the epidemic progresses, it is essential to be prepared to reduce its overwhelming sociological and psychological impact on individuals, families and communities. This can be accomplished by planning and training counsellors, setting up community based care structures and improving access to health care facilities for those afflicted. This will take the coordinated efforts of government, the private sector and non-governmental organizations.

### 3.10.2 Objectives

- Development and training of resources to enable the appropriate provision of counselling services where needed in India to reduce social and psychological impact of the AIDS epidemic and for prevention of the spread of HIV infection.
- Ensure that all affected by AIDS receive proper care and treatment inside and outside the clinical setting with respect for each individuals rights and dignity.
- Ensure that health care workers are adequately trained to provide good quality care to patients with HIV and AIDS, and that such care is not jeopardized by misconceptions and undue fear.
- Ensure support for community based care programmes, and ensure easy access to good quality services for those in need of such services.

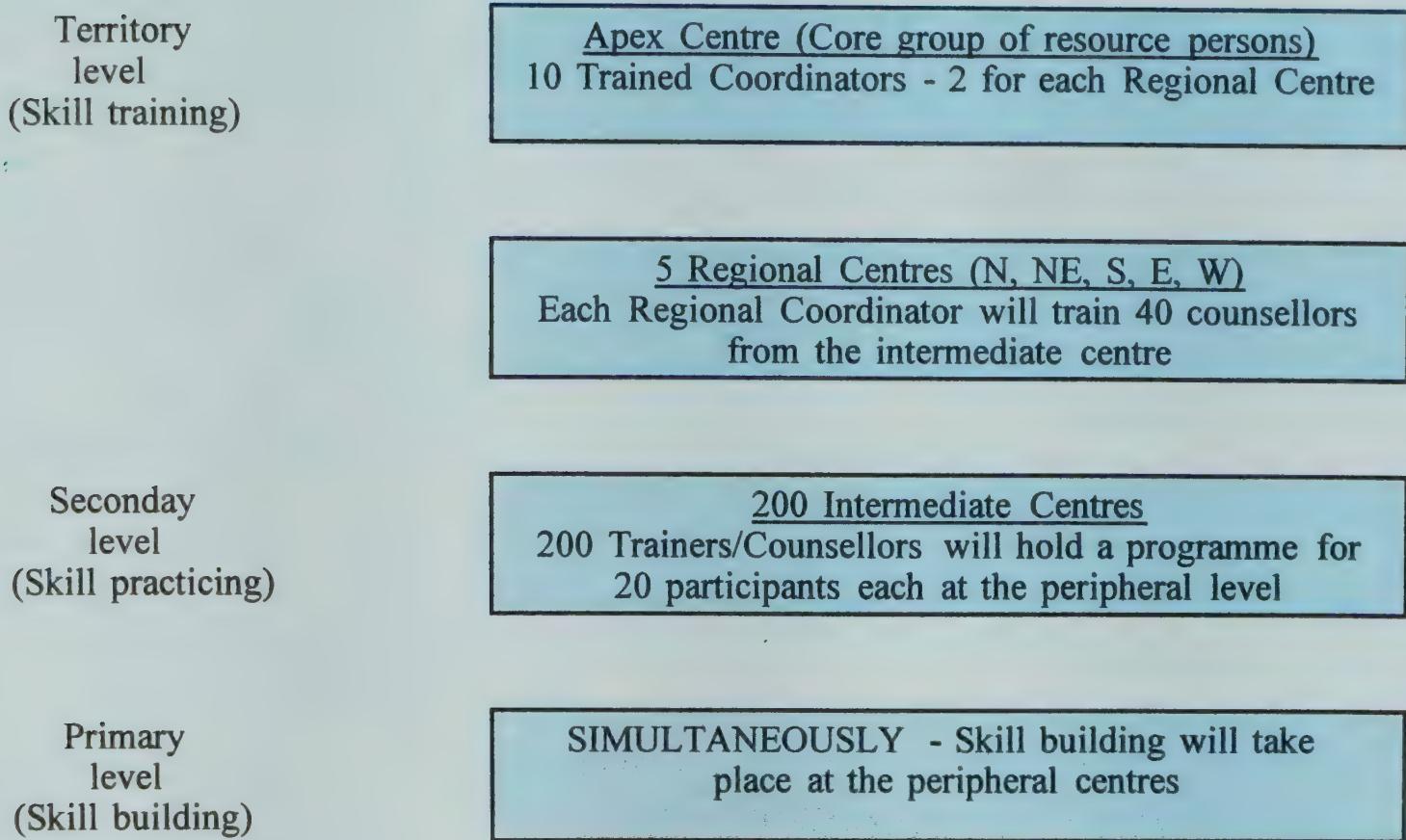
### 3.10.3 Strategies for Reduction of Impact

#### Counselling

HIV/AIDS counselling is an on-going dialogue and relationship between client or patient and counsellor, with the aims of (1) preventing transmission of HIV infection and (2) providing psychosocial support to those already affected. Prevention and support are complementary processes.

Counselling for HIV/AIDS is a new concept in India. There is a history of counselling activities associated with family planning, but never before has counselling for the prevention of disease been so urgently required or so important. Setting up a comprehensive counselling support programme, including training of a wide variety of health care workers and social and community workers through a standard training module and materials, are important aspects of the plans for this component (see figure 3.10.1).

**Figure 3.10.1**  
**NACO Counselling Strategy Dissemination**



### **Activities and Plans**

- NACO organized a national workshop with top counselling experts in the country. In one week in February 1993, the rough outline of a Indian counselling training module was developed. The module is for use in training all categories of health and community workers in counselling for AIDS and STDS.
- Regional agencies are being approached to set up Training of Trainers Programs in the country.
- NACO and Indian counselling experts participated in a regional workshop on counselling training sponsored by WHO in March 1993 and held in India.

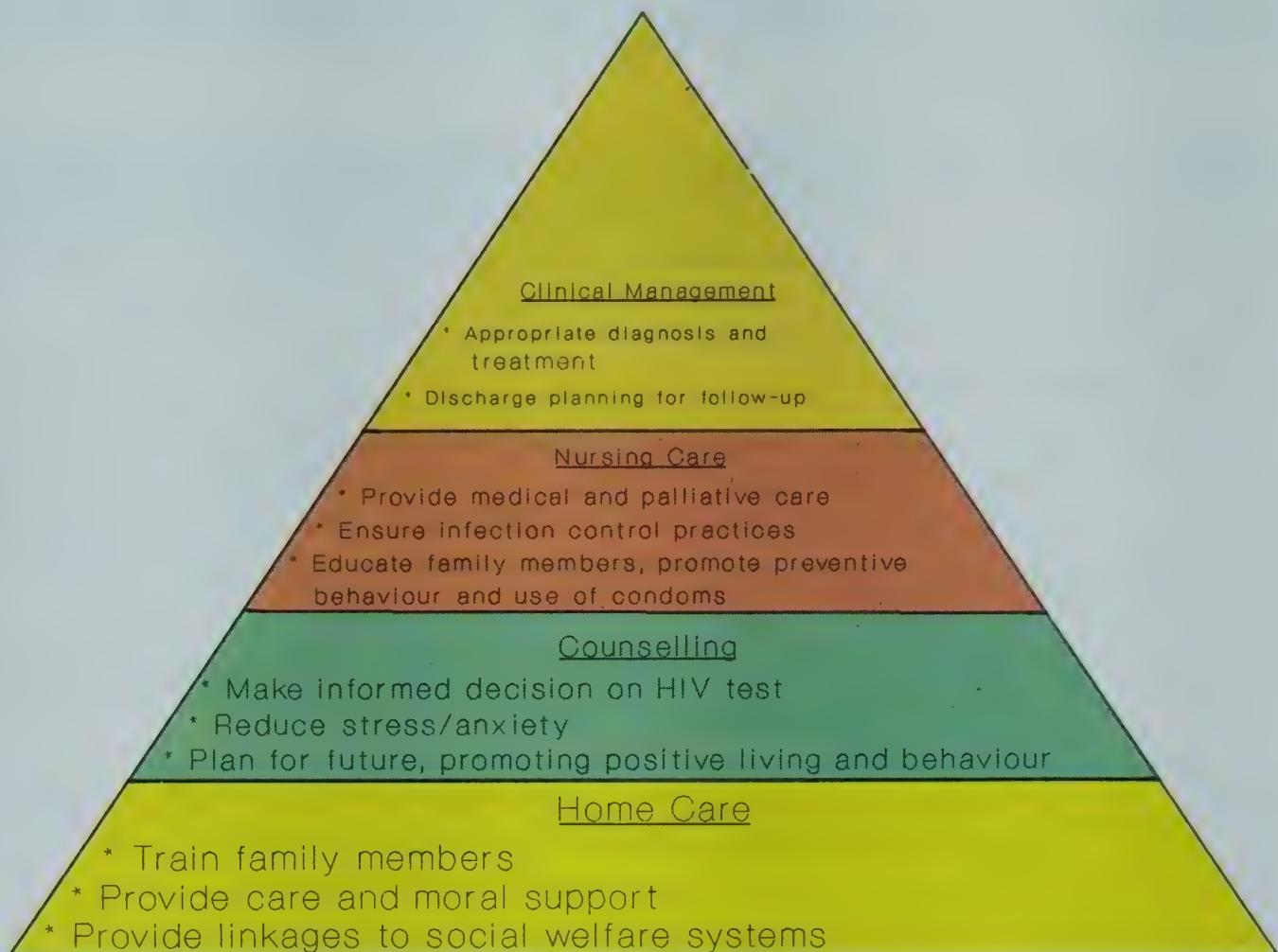
During 1993/4, the counselling module will be finalized and the trainers of training programme for nodal agencies completed. Also, peripheral centres will be trained and the work of training all necessary personnel will be well underway. The module and training approaches will be disseminated through all programmes and institutions working in AIDS prevention and control in the country.

### **Community Based Care**

Even if all new cases of HIV infection could be prevented, the number of people with HIV infection (including AIDS) would continue to increase rapidly in the foreseeable future as individuals currently infected with HIV gradually become ill. Without advance planning, the needs of those people and their families will overwhelm health care systems and community resources.

AIDS patients and those with related illnesses can be taken care of in the home setting with proper support and backup from the community and local health facilities (see figure 3.10.2). As an individual becomes ill from AIDS or an AIDS-related illness, she/he will make the journey from home to the clinical setting a number of times. The many steps along this route from home via the community health workers and local clinic to the hospital need to be prepared and strengthened. The fears of health care and community workers need to be allayed with clear information and education.

**Figure 3.10.2**  
**Continuum of care for persons with HIV/AIDS**



### Activities and Plans

- NACO will initiate activities by participating in March 1993 in a Regional Workshop sponsored by WHO to discuss the myriad issues involved in developing and strengthening structures to cope with home care programming.

## **Health Care Services**

As people infected with HIV gradually develop HIV-related diseases and eventually AIDS, this will place an increasingly heavy burden on the health care system. Care for people with HIV and AIDS will often be provided in clinical settings where health care workers are not used to treating and managing such patients. Misconceptions regarding the infectivity of patients and fear of health care workers might jeopardize the quality of care provided. Unjustified calls for isolation of patients with HIV infection or AIDS might further constrain the potential of the clinical services to deal with such patients by expanding services, or it might lead to an actual reduction in the care services provided. It is therefore of importance that patients with HIV infection or AIDS are not segregated but are treated in regular wards.

The training of health care workers in both the clinical and social psychological impacts of AIDS on themselves and those in their care is essential.

### **Activities 1992/93 and Plans**

- Training programmes for physicians and nurses have been initiated concentrating on the human element of the HIV/AIDS patient through counselling training.

## TRAINING

In 1987 when the National AIDS Control Programme was formulated, it was felt that clinical surveillance was important for both case detection and management. Initially three clinicians were sent for a three week training to the USA and the UK. In June 1988, the Government sent groups of clinicians and nurses to a WHO organized course on clinical management of AIDS/HIV, conducted at the New South Wales School of Medicine. Following this six weeks training the MOH&FW held training workshops in the 13 medical colleges which eventually became clinical referral centres (their names are shown in the AIDS country scenario, February 1991).

In 1989 another three groups of physicians and nurses from Lucknow, Bombay and Calcutta were sent to the same course at the New South Wales School of Medicine.

Following the episode in Delhi where the interns and residents refused to assist in delivery of a HIV infected woman, orientation courses were held for the senior resident doctors, and paramedical staff in all government hospitals of Delhi. During 1991-92 a series of training workshops was conducted for physicians, NGOs, counsellors and laboratory technicians. These workshops organized by various parties used locally developed materials. Some of these workshops were supported financially by NACO, while others were supported by both NACO and WHO technically.

### 3.11.1 NACO Training Activities

Each of the seven components of the Strategic Plan includes training as a major activity. The training process is planned as a centre - periphery model, using trainers from one level to train groups of trainers at the next level. Training of trainers is therefore a critical activity, and to ensure quality and standard procedures and practices, the trainers will rely on standard training materials made available by NACO.

**Table 3.11.1**  
**Category of workers to be trained for**  
**National AIDS Control Programme**

1. State/Municipal ACP Programme Officers
2. State/Municipal ACP IEC Officers
3. State/Municipal Epidemiologists/Surveillance Teams
4. State/Municipal NGO Officers
5. HIV Lab Virologists/Immunologists
6. Physicians Responsible for AIDS Diagnosis (PRADs)
7. HIV Laboratory Technicians/Blood Bank Technicians
8. STD Programme Managers
9. STD Clinicians
10. STD Laboratory Technicians
11. Blood Bank Managers
12. Hospital-based Physicians/Nurses/Social Workers
13. Community-based Counsellors/Social Workers
14. Community-based Physicians/Nurses
15. Media Editors/Correspondents
16. Community-based NGOs working with high risk behaviour
17. Community-based NGOs working with community care

An operational training plan has been developed which identifies categories of staff to be trained, location of training, the duration of training and the number of persons to be trained. The plan also identifies topics to be covered, estimated time allocations for each topic and the training material needed for each staff category to be trained (summary is shown in tables 3.11.1 & 3.11.2). It is estimated approximately half a million public sector health employees will be trained under this plan at an estimated cost of US\$ 16 million.

**Table 3.11.2**  
**Training materials to be developed by the**  
**National AIDS Control Programme**

<b>Training Modules</b>	
1.	AIDS-case diagnosis and management
2.	Counselling
3.	a) STD control programme
	b) STD-case management
4.	Blood safety
5.	HIV surveillance
6.	Prevention of HIV/STD infections through behaviour change
7.	HIV laboratory services
<b>Guidelines</b>	
1.	Programme planning, monitoring and evaluation
2.	Intervention for high risk behaviour groups
3.	Development of target IEC materials
4.	HIV laboratory diagnosis
5.	AIDS-case diagnosis/surveillance
6.	Condom programming
7.	Community care
8.	Blood safety
9.	Hospital infection control
10.	STD laboratory diagnosis
<b>Handouts</b>	
1.	Epidemiology for HIV/AIDS
2.	Prevention and control of AIDS
3.	HIV surveillance
4.	AIDS-case surveillance
5.	AIDS-case diagnosis and management
6.	HIV laboratory diagnosis
7.	Counselling
8.	Community care
9.	IEC and AIDS prevention
10.	Intervention with high risk behaviours
11.	Approaches to STD control
12.	STD-case management
13.	STD laboratory diagnosis
14.	Condom programming
15.	Condom quality assurance
16.	Condom marketing/distribution
17.	Blood safety approaches
18.	Women and AIDS
19.	Sterilization and disinfection
20.	Prevention of HIV transmission in health care settings

All Programme components replicate a model of training from centre to periphery (see figure 3.11.3). Regional centres have been identified which will function as core training centres for a certain number of states. Each state will nominate a leading institution which will form a core team to lead the training at the state level.

The training models have been developed on a number of subjects, including:

- STD case management;
- STD control;
- Information, Education and Communication;
- Counselling;
- AIDS case referral system;
- HIV surveillance;
- AIDS case diagnosis and management

The last two documents have been pretested at training sessions of respective professional groups.

**Table 3.11.3**  
**Patterns of training flow from the National level to the**  
**implementing organization staff**

Training level	National/Regional	State	District	Implementing
T R A I N E E S	STD Programme Officer	<b><u>Management</u></b>  State AIDS Cell/STAC Staff	-	-
	State Epidemiologists	<b><u>Surveillance</u></b>  State/Municipal HIV Surveillance teams	-	Survey related institutions
	Regional Trainers	<b><u>AIDS Case management and reporting</u></b>  District/Municipal Hospital PRAMs	PHC/SHC Physicians	PHC/SHC staff
	Nodal agencies	<b><u>NGOs</u></b>  NGOs	NGOs	NGOs
	Communication Institutions (TOT)	<b><u>IEC</u></b>  Communication Institutions (TOT)	Communication institutions	Implementing staff

#### 4. PROGRAMME FINANCING

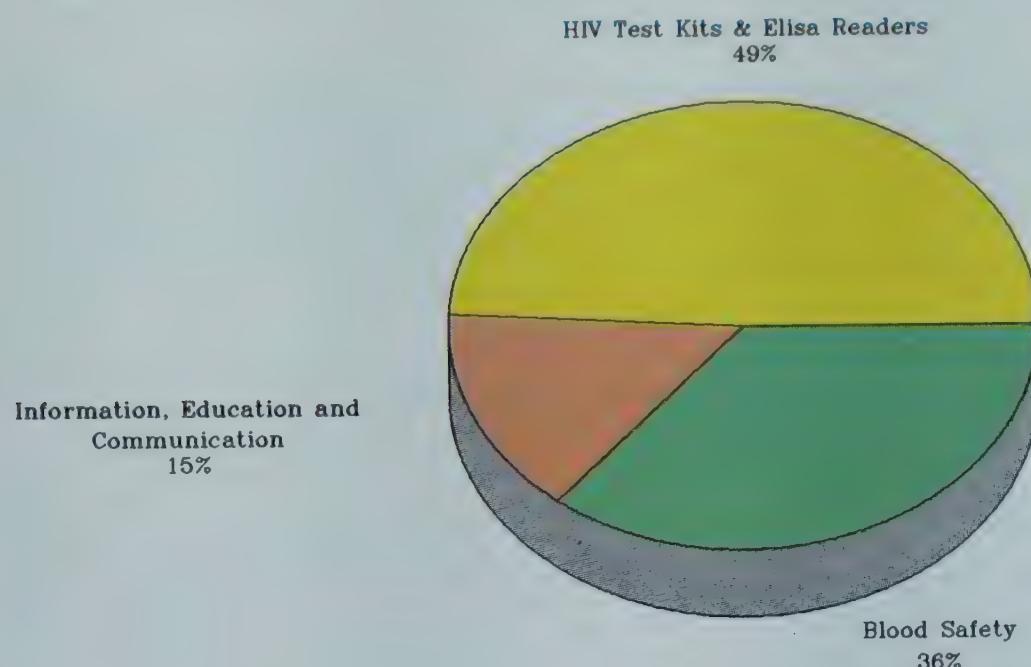
AIDS prevention and control activities have been supported by the National Budget of the Government of India since 1987, with additional assistance coming from and through WHO since 1990. The recent signing of the credit agreement with World Bank has substantially expanded the resources available to these activities at National and State level.

As detailed in table 4.1 and figure 4.1, the bulk of funds available through the National Budget since 1987 up to 1992 have been focused in the areas of HIV screening and blood safety. This has involved the establishment of HIV screening capability through the procurement of HIV test kits and readers, as well as the gradual establishment of a national surveillance system for HIV infection.

**Table 4.1**  
**Budget provision under the National AIDS Control Project**  
**(including Blood Safety) for the years 1987-88 to 1992-93**

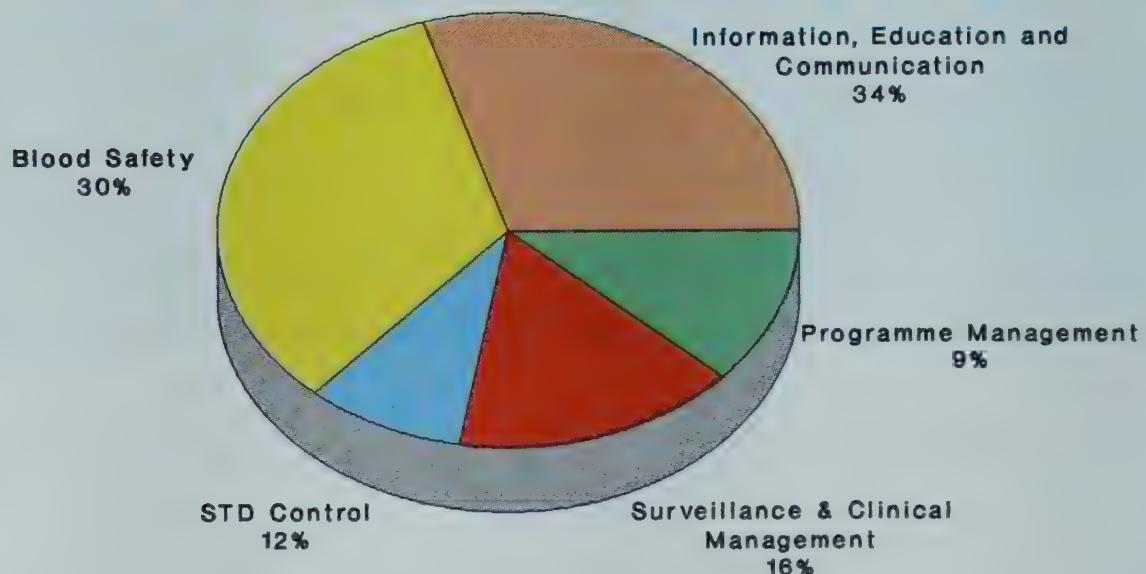
Year	Amount	Break up
1987-88	Rs 2.50 Crores	Kits & Readers Health Education Blood Safety
1988-89	Rs 3.50 Crores	Kits Health Education Blood Safety
1989-90	Rs 4.00 Crores	Kits Health Education Blood Safety
1990-91	Rs 4.50 Crores	Kits Health Education Blood Safety
1991-92	Rs 9.00 Crores	Kits Health Education Blood Safety
1992-93	Rs 70.00 Crores	Programme Management Blood Safety I.E.C. Surveillance and Clinical Management STD Control

**Figure 4.1**  
**Allocation of Government of India funds to**  
**National AIDS Programme areas 1987-92 (GOI/MOH&FW budget)**



In addition, the 1992-93 budget has seen a substantial increase in the availability of funds for the areas of Programme Management and Information, Education and Communication (see table 4.1 and figure 4.2). In the former, funds have been made available for the establishment of the NACO office itself, as well as for support to the creation of the similar cells at State level. In the field of IEC efforts are being made to establish a nation-wide multi-media campaign of information on HIV/AIDS/STD for the general public, as well as for the strengthening of the IEC capacities of the States to conduct targeted campaigns.

**Figure 4.2**  
**Allocation of Government of India funds to**  
**National AIDS Control Programme components, 1992-93**



As detailed in table 4.2 funds have been made available by the WHO Regular Budget and Extrabudgetary AIDS Trust Fund to further assist in the fight against HIV/AIDS/STD in India. Additionally, funds from certain bilateral donor agencies (Swedish SIDA and USAID) have also been channeled through WHO to both the National as well as certain State Medium

Term Plan programmes since 1990. The bulk of these funds have been concentrated on support to IEC programming and activity development. Some funds (those from USAID) have also been concentrated upon the strengthening of the zonal blood centres in order to ensure blood safety in the zones concerned.

**Table 4.2**  
**WHO Regular and Extrabudgetary resources in support of the**  
**Government of India National AIDS Control Programme 1990-93**

Period/Details	WHO Regular Country Budget Resources	WHO/Global Programme on AIDS Extrabudgetary Trust Fund Resources		Total (US\$)
		Multi-bilateral	Global undesignated	
<u>1990-91</u>				
- MOH&FW (DGHS)	525,850		515,000	1,040,850
- Maharashtra State			445,424	
- Manipur State			62,856	445,424
Total	525,850		1,023,280	62,856
				1,549,130
<u>1991-92</u>				
- MOH&FW (DGHS/NACO)		245,985 (SIDA)		2,105,985
- Tamil Nadu State		1,860,000(USAID)	39,883	286,904
- West Bengal State		247,021 (SIDA)		367,412
- Delhi Union Territory		367,412 (SIDA)	48,961	142,368
		93,407 (SIDA)		
Total		2,813,825	88,844	2,902,669
<u>1992-93</u>				
- MOH&FW (NACO)	306,200		2,417,603	2,723,803
- BMC Project		542,495 (SIDA)		542,495
Total	306,200	542,495	2,417,603	3,266,298
<b>G. TOTAL 1990-93</b>				<b>7,718,097</b>

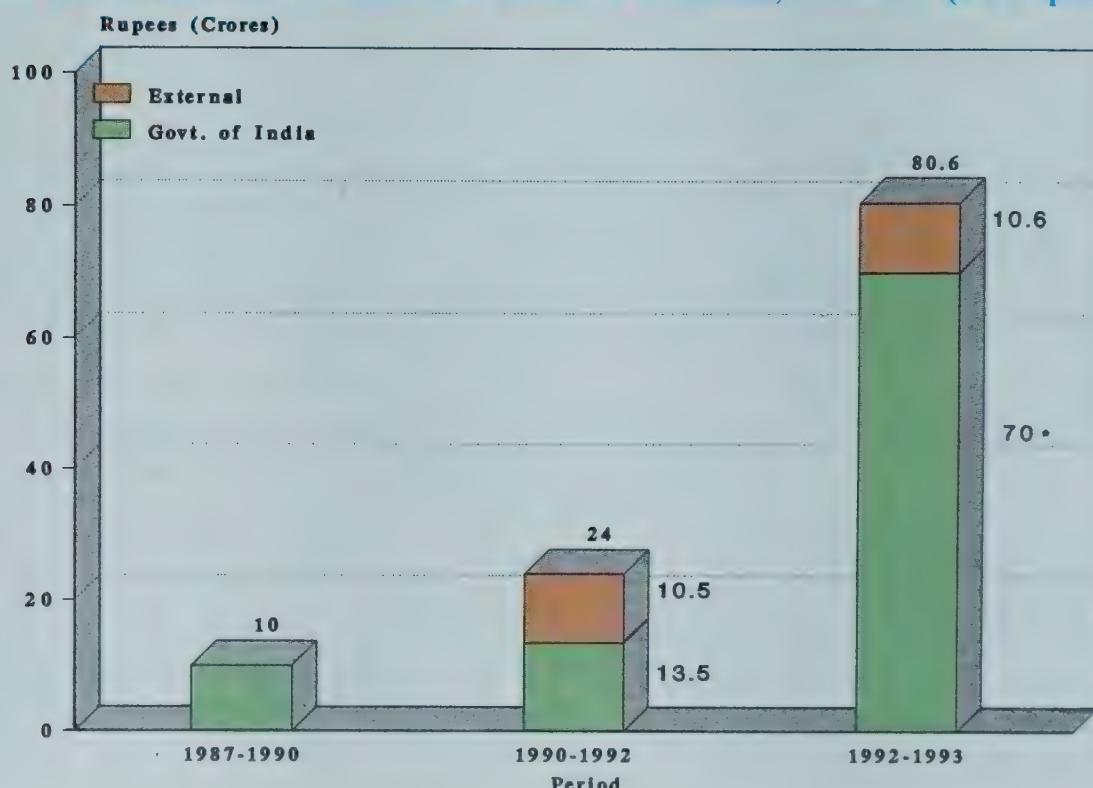
Special allocations of funds under the original GOI/WHO Medium Term Plans for AIDS Prevention and Control in India have also provided direct assistance to four States (Maharashtra, Manipur, Tamil Nadu and West Bengal) and one Union Territory (Delhi) considered to be at greatest initial risk from the spread of HIV infection. Funds provided to these States have been directed at the establishment of the State AIDS Cells, as well as the provision of support for HIV screening and surveillance. The majority of the funds made available, however, have been directed at IEC activities to increase the availability of information on HIV/AIDS/STD, as well as for the establishment of targeted intervention activities directed at testing strategies to slow the spread of HIV infection amongst persons with high risk behaviours.

Additional support for HIV/AIDS/STD prevention and control activities has also been forthcoming through direct bilateral assistance to both the Government of India as well as to autonomous institutions and Non-governmental Organizations. Details of some of these contributions can be seen in Table 4.3. External assistance to complement the Government of India's growing commitment to HIV/AIDS/STD prevention and control in India can be seen in Figure 4.3.

**Table 4.3**  
**Additional Financial Support for the**  
**National AIDS Control Programme 1992-95**

Source/Agency	Amount (US\$)	Remarks
SIDA (Sweden)	12,500,000	Pledged to NACO through WHO for IEC/STD activities for 1993-95
ODA(UK)	a) 35,000 b) 2,500,000	1991-92 support to North-Eastern States Proposed support to Programme activities in the State of West Bengal, 1993-95
NORAD (Norway)	a) 28,000 b) 110,000 c) 300,000	Support to NGO AIDS Cell Support to the AIIH&PH Intervention Project, Calcutta, 1992-93 Pledged support to NACO/CMAI training activities 1993-94
USAID (USA)	10,000,000	Support to NGO activities in the State of Tamil Nadu, 1992-99
Ford Foundation	110,000	Support to MCGB Intervention Project through condom promotion with PSI, 1991-92
International Development Association (World Bank)	85,000,000	Support to National AIDS Control Programme, 1992-97

**Figure 4.3**  
**National and external components of overall expenditure on HIV/AIDS Prevention & Control in India, 1992-93 (In rupees)**



**Annex 3.2.1**  
**List of surveillance centres where HIV**  
**testing facilities are available**

1. <b>Andhra Pradesh</b>	1. Department of Microbiology, Osmania College, Hyderabad 2. Department of Microbiology, SV Medical College, Tirupati 3. Department of Microbiology, Andhra Medical College, Vishakapatnam 4. Indian Naval Ship Hospital, Kaiyani, Vishakapatnam 5. Instt. of Preventive Medicine, Hyderabad
2. <b>Arunachal Pradesh</b>	6. District Hospital, Itanagar
3. <b>Assam</b>	7. Department of Microbiology, Guwahati Medical College, Guwahati
4. <b>Bihar</b>	8. Rajendra Memorial Research, Institute, Patna
5. <b>Goa</b>	9. Department of Microbiology, Goa Medical College, Panaji
6. <b>Gujarat</b>	10. Department of Microbiology, BJ Medical College, Ahmedabad
7. <b>Haryana</b>	11. Department of Microbiology, Medical College, Rohtak
8. <b>Himachal Pradesh</b>	12. Department of Microbiology, Indira Gandhi Medical College, Shimla
9. <b>Jammu &amp; Kashmir</b>	13. Department of Immunopathology, Sher-e-Kashmir Institute of Medical Sciences, Srinagar 14. Department of Microbiology, Government Medical College, Jammu
10. <b>Karnataka</b>	15. Department of Microbiology, Bangalore Medical College, Bangalore 16. Department of Microbiology, Kasturba Medical College, Manipal 17. National Institute of Mental and Neuro Surgery, Bangalore
11. <b>Kerala</b>	18. Department of Microbiology, Medical College, Trivandrum 19. Indian Naval Ship Hospital, Cochin
12. <b>Madhya Pradesh</b>	20. Department of Pathology, Gandhi Medical College, Bhopal 21. Choitram Hospital and Research Centre, Indore 22. Regional Medical Research, Centre for Tribal Health, Jabalpur
13. <b>Maharashtra</b>	23. Department of Microbiology, Seth G.S. Medical College, Bombay 24. Department of Microbiology, JJ Hospital, Bombay 25. Sion Hospital, Bombay 26. B.Y.N. Nair Hospital, Bombay 27. Rajabari Hospital, Ghatkopar, Bombay 28. Indian Naval Ship Hospital, Ashwani, Bombay 29. Department of Microbiology, Armed Forces Medical College, Pune 30. B.J. Medical College, Pune 31. Department of Microbiology, Govt. Medical College, Nagpur 32. Civil Hospital, Kolhapur 33. District Hospital, Chandrapur 34. Governmental Medical College, Miraj
14. <b>Manipur</b>	35. J.N. Hospital, Imphal
15. <b>Meghalaya</b>	36. Civil Hospital, Shillong
16. <b>Mizoram</b>	37. Civil Hospital, Aizwal
17. <b>Nagaland</b>	38. Naga Hospital, Kohima 39. District Hospital, Dimapur
18. <b>Orissa</b>	40. Department of Microbiology, S.C.B. Medical College, Cuttack 41. Regional Medical Research Centre, Bhubneshwar
19. <b>Punjab</b>	42. Government Medical College, Amritsar
20. <b>Rajasthan</b>	43. Department of Microbiology, S.M.S. Medical College, Jaipur
21. <b>Sikkim</b>	44. S.T.N.M. Hospital, Gangtok
22. <b>Tamil Nadu</b>	45. Department of Microbiology, Instt. of Child Health and Hospital for Children, Madras 46. Tuberculosis Research Centre, Madras 47. Department of Microbiology, Madurai Medical College, Madurai
23. <b>Tripura</b>	48. District Hospital, Agartala
24. <b>Uttar Pradesh</b>	49. Department of Microbiology, K.G. Medical College, Lucknow 50. Department of Microbiology, Instt. of Medical Sciences, Varanasi 51. Jawahar Lal Nehru Medical College, Aligarh 52. Central JALMA Instt. for Leprosy, Agra 53. Kamla Nehru Memorial Hospital, Allahabad

25.	<b>West Bengal</b>	54.	All India Institute of Hygiene & Public Health, Calcutta
26.	<b>A &amp; N Islands</b>	55.	G.B. Hospital, Port Blair
27.	<b>Chandigarh</b>	56.	Department of Immunopathology, P.G.I., Chandigarh
28.	<b>Dadra &amp; Nagar Haveli</b>		-
29.	<b>Daman &amp; Diu</b>		-
30.	<b>Delhi</b>	57.	Department of Microbiology, Maulana Azad Medical College, New Delhi
		58.	Armed Forces Command Hospital, Delhi Cantt
		59.	Department of Microbiology, University College of Medical Sciences, Shahdara, Delhi
31.	<b>Lakshdweep</b>	60.	Govt. Hospital, Kavarati
32.	<b>Pondicherry</b>	61.	Department of Microbiology, JIPMER, Pondicherry
		62.	Government General Hospital, Pondicherry

**Annex 3.2.2**  
**List of HIV reference centres**

1. National Institute of Communicable Diseases  
Delhi
2. All India Institute of Medical Sciences  
New Delhi
3. Indian Institute of Immunohematology  
Bombay
4. National Institute of Cholera and Enteric Diseases  
Calcutta
5. School of Tropical Medicines  
Calcutta
6. Madras Medical College  
Madras
7. National Institute of Virology  
Pune
8. Regional Medical College  
Imphal
9. Christian Medical College  
Vellore

The reference centres should be entrusted with the responsibility of carrying out confirmatory test. They should also be made responsible for diagnosis, quality control of HIV kits, guidelines for HIV testing, training in HIV testing and any other activity which may be necessary for standardization of HIV testing.

**Annex 3.2.3**  
**Zonal blood testing centres in the country**

1.	<b>Andhra Pradesh</b>	1. Blood Bank, Gandhi Hospital, Hyderabad 2. Blood Bank, M.J. Cancer Hospital, Hyderabad 3. Blood Bank, Nizam's Orth. Hospital, Hyderabad 4. Blood Bank, Instt. of Preventive Medicines, Hyderabad 5. Blood Bank, Govt. Headquarters Hospital, Vijayawada 6. Blood Bank, Govt. Headquarters Hospital, Karim Nagar 7. Blood Bank, Govt. Headquarters Hospital, Cuddappah 8. Blood Bank, Govt. Headquarters Hospital, Kammam 9. Blood Bank, Govt. Headquarters Hospital, Chittoor 10. Blood Bank, Medical College, Tirupati 11. Blood Bank, Guntur Medical College, Guntur 12. Blood Bank, Kurnool General Hospital, Kurnool
2.	<b>Arunachal Pradesh</b>	13. Blood Bank, Government Hospital, Itanagar
3.	<b>Assam</b>	14. Blood Bank, Guwahati Medical College, Guwahati 15. Blood Bank, Medical College, Dibrugarh 16. Blood Bank, Medical College, Silchar
4.	<b>Bihar</b>	17. Blood Bank, Nalanda Medical College, Patna 18. Blood Bank, Patna Medical College, Patna 19. Blood Bank, District Hospital, Dhanbad 20. Blood Bank, District Hospital, Jamshedpur 21. Blood Bank, Tata Hospital, Jamshedpur 22. Blood Bank, Rajendra Medical College, Ranchi 23. Blood Bank, Medical College, Bhagalpur 24. Blood Bank, Shri Krishna Medical College, Muzaffarpur 25. Blood Bank, District Hospital, Aurangabad
5.	<b>Goa</b>	26. Blood Bank, Medical College, Panaji 27. Blood Bank, Civil Hospital, Panaji
6.	<b>Gujarat</b>	28. Blood Bank, Surat Medical College, Surat 29. Blood Bank, Govt. Medical College, Vadodara 30. Blood Bank, B.J. Medical College, Ahmedabad 31. Blood Bank, M.P. Shah Hospital, Jamnagar 32. Blood Bank, District Hospital, Junagadh 33. Blood Bank, Civil Hospital, Amreli
7.	<b>Haryana</b>	34. Blood Bank, Medical College, Rohtak 35. Blood Bank, General Hospital, Hissar 36. Blood Bank, General Hospital, Faridabad 37. Blood Bank, General Hospital, Karnal
8.	<b>Himachal Pradesh</b>	38. Blood Bank, Indira Gandhi Medical College, Shimla 39. Blood Bank, District Hospital, Dharamshala
9.	<b>Jammu &amp; Kashmir</b>	40. Blood Bank, Govt. Hospital, Srinagar 41. Blood Bank, Medical College, Jammu 42. Blood Bank, Command Hospital, Northern Command, Udhampur
10.	<b>Karnataka</b>	43. Blood Bank, K.C. General Hospital, Bangalore 44. Blood Bank, H.S.I.S. Hospital, Bangalore 45. Blood Bank, K.M. Instt. of Oncology, Bangalore 46. Blood Bank, Command Hospital, Bangalore 47. Blood Bank, K.M.C. Hospital, Hubli 48. Blood Bank, Kasturba Medical College, Manipal 49. Blood Bank, Medical College, Bellari 50. Blood Bank, Kasturba Medical College, Mangalore 51. Blood Bank, Medical College, Gulbarga
11.	<b>Kerala</b>	52. Blood Bank, Medical College Hospital, Calicut 53. Blood Bank, Govt. Hospital, Ernakulam 54. Blood Bank, Medical College, Trivandrum 55. Blood Bank, District Hospital, Trichur 56. Blood Bank, District Hospital, Cannanore
12.	<b>Madhya Pradesh</b>	57. Blood Bank, Medical College, Bhopal 58. Blood Bank, Deptt. of Pathology, Gandhi Medical College, Bhopal 59. Blood Bank, Medical College, Gwalior 60. Blood Bank, Choithram Hospital and Research Centre, Indore 61. Blood Bank, Medical College, Indore 62. Blood Bank, Regional Medical Research Centre, Jabalpur 63. Blood Bank, Rewa Medical College, Rewa 64. Blood Bank, District Hospital, Bilaspur 65. Blood Bank, Medical College, Jabalpur

13.	<b>Maharashtra</b>	66. Blood Bank, KEM Hospital, Bombay 67. Blood Bank, L.T.M.G. Hospital, Bombay 68. Blood Bank, B.Y.L. Nair Hospital, Bombay 69. Blood Bank, Haffkine Institute, Bombay 70. Blood Bank, Tata Memorial Hospital, Bombay 71. Blood Bank, Red Cross, Bombay 72. Blood Bank, Cooper Hospital, Bombay 73. Blood Bank, Rajawadi Hospital, Bombay 74. Blood Bank, J.J. Hospital, Bombay 75. Blood Bank, General Hospital, Solapur 76. Blood Bank, Government Hospital, Ulhasnagar 77. Blood Bank, Armed Forces Medical College, Pune 78. Blood Bank, Sasoon Hospital, Pune 79. Blood Bank, Govt Medical College, Miraj 80. Blood Bank, District Hospital, Chandrapur 81. Blood Bank, General Hospital, Kolhapur 82. Blood Bank, Medical College, Nagpur
14.	<b>Manipur</b>	83. Blood Bank, J.N. Hospital, Imphal
15.	<b>Meghalaya</b>	84. Blood Bank, Pateure Institute, Shillong
16.	<b>Mizoram</b>	85. Blood Bank, Government Hospital, Aizwal
17.	<b>Nagaland</b>	86. Blood Bank, District Hospital, Dimapur 87. Blood Bank, District Hospital, Muckchong 88. Blood Bank, Government Hospital, Kohima
18.	<b>Orissa</b>	89. Blood Bank, R.M.R.C., Bhubneshwar 90. Blood Bank, M.K.G.G. Medical College, Burla 91. Blood Bank, V.S.S. Medical College, Burla 92. Blood Bank, S.C.B. Medical College, Cuttack
19.	<b>Punjab</b>	93. Blood Bank, Shri Guru Tegh Bahadur Hospital, Amritsar 94. Blood Bank, Rajendra Hospital, Patiala 95. Blood Bank, Civil Hospital, Ludhiana
20.	<b>Rajasthan</b>	96. Blood Bank, S.M.S. Medical College, Jaipur 97. Blood Bank, Medical College, Ajmer 98. Blood Bank, Medical College, Bikaner 99. Blood Bank, S.N. Medical College, Jodhpur 100. Blood Bank, General Medical College, Udaipur
21.	<b>Sikkim</b>	101. Blood Bank, S.T.N.M. Hospital, Gangtok
22.	<b>Tamil Nadu</b>	102. Blood Bank, Madras Medical College, Madras 103. Blood Bank, Stanely Medical College, Madras 104. Blood Bank, Kalpak2 Medical College, Madras 105. Blood Bank, Govt. Royapettah Hospital, Madras 106. Blood Bank, Apollo Hospital, Madras 107. Blood Bank, Madurai Medical College, Madras 108. Blood Bank, S.G. Hospital, Madras 109. King's Hospital, Madras 110. Blood Bank, Government Hospital, Coimbatore 111. Blood Bank, Government Hospital, Salem 112. Blood Bank, Government Hospital, Tiruchirapally 113. Blood Bank, Christian Medical College, Vellore 114. Blood Bank, Medical College, Tirunelveli
23.	<b>Tripura</b>	115. Blood Bank, G.B. Hospital, Agartala
24.	<b>Uttar Pradesh</b>	116. Blood Bank, District Hospital, Gorakhpur 117. Blood Bank, G.S.V. Medical College, Kanpur 118. Blood Bank, District Hospital, Allahabad 119. Blood Bank, District Hospital, Meerut 120. Blood Bank, K.G. Medical College, Lucknow 121. Blood Bank, Command Pathology Lab, Central Command, Lucknow 122. Blood Bank, S.G.P.G.I., Lucknow 123. Blood Bank, Medical College, Varanasi 124. Blood Bank, Medical College, Agra 125. Blood Bank, District Hospital, Dehra Dun 126. Blood Bank, District Hospital, Nainital 127. Blood Bank, District Hospital, Shahjahanpur 128. Blood Bank, M.L.B. Medical College, Jhansi

25.	<b>West Bengal</b>	129.	Central Blood Bank, Calcutta
		130.	Blood Bank, C.N.M.C.H., Calcutta
		131.	Blood Bank, N.R.S.M.C.H., Calcutta
		132.	Blood Bank, R.G.K.A.R.M.C.H., Calcutta
		133.	Blood Bank, S.S.K.M., Calcutta
		134.	Blood Bank, Command Pathology Lab, Eastern Command, Calcutta
		135.	Blood Bank, District Hospital, West Dinajpur
		136.	Blood Bank, North Bengal Medical College, Darjeeling
		137.	Blood Bank, District Hospital, Jalpaiguri
		138.	Blood Bank, State Hospital, Burdwan
26.	<b>A &amp; N Islands</b>	139.	Blood Bank, G.B. Pant Hospital, Port Blair
27.	<b>Chandigarh</b>	140.	Blood Bank, P.G.I., Chandigarh
28.	<b>Dadra &amp; Nagar Haveli</b>		-
29.	<b>Daman &amp; Diu</b>		-
30.	<b>Delhi</b>	141.	Blood Bank, G.T.B. Hospital, Shahdara, Delhi
		142.	Blood Bank, AIIMS, New Delhi
		143.	Blood Bank, Instt. of Pathology, New Delhi
		144.	Blood Bank, Hindu Rao Hospital, New Delhi
		145.	Blood Bank, LNJP/MAMC Hospital, New Delhi
		146.	Blood Bank, Indian Red Cross Society, New Delhi
		147.	Blood Bank, L.H.M.C., New Delhi
		148.	Blood Bank, Deptt. of S.T.D., Safdarjung Hospital, New Delhi
		149.	Blood Bank, Armed Forces Command Hospital, New Delhi
31.	<b>Lakshdweep</b>		-
32.	<b>Pondicherry</b>	150.	Blood Bank, JIPMER, Pondicherry



